Gold Handbook Bond

CATALOG OF GOLD BOND

WALL AND CEILING

BUILDING MATERIALS

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BY

NATIONAL GYPSUM COMPANY

(Prepared by Sweet's Catalog Service)

Gold Bond HANDBOOK

ON RELATED PRODUCTS FOR WALLS AND CEILINGS

Manufactured by National Gypsum Company and sold through 10,000 dealers in the United States . . . A complete service in related wall and ceiling building materials controlled and guaranteed by one company.

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NATIONAL GYPSUM COMPANY

GENERAL OFFICES, BUFFALO, N. Y.

THE GOLD BOND HANDBOOK

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M. H. BAKER, President

ATIONAL GYPSUM COMPANY supplies through its 10,000 dealers a full line of building products comprising practically every type of material required for approved wall and ceiling construction and interior finish.

Included are gypsum wallboards in plain, wood grain and tile finishes, five kinds of lath, base and finish plasters, acoustical products and sound absorbing tiles, lime, casein paint, textures, hardboards, and a complete line of aluminum foil, rock wool and fibre insulation products. Over 150 guaranteed wall and ceiling building materials and all supplied under the one trade name . . . "Gold Bond."

Twelve district sales offices plus a large corps of field representatives, specially trained in wall and ceiling construction, offer constant sales co-operation to Gold Bond Dealers. And fifteen modern plants, strategically located in the South, Central and Eastern sections of the country, insure the utmost in service.

In the fifteen years of NATIONAL GYPSUM'S existence, a reputation for uniform high quality has been built up for its products among architects, contractors and dealers. No matter what the item may be, the name "Gold Bond" today earns immediate acceptance for it in the building world. As president of this organization, I promise that this reputation shall be maintained.

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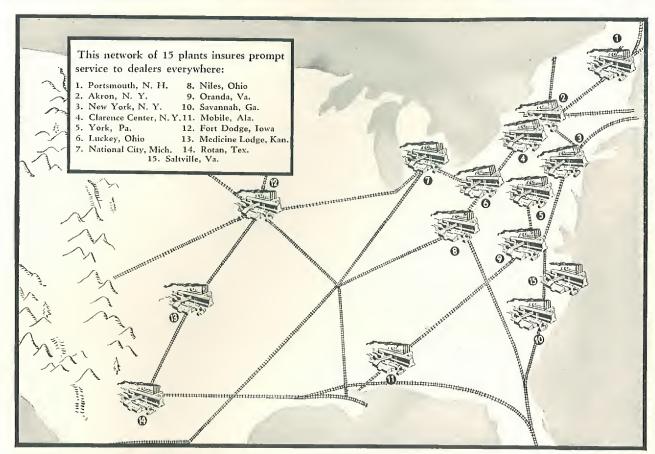
FIFTEEN GOLD BOND PLANTS TO SERVE YOU

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Savannah, Ga. . . . The most modern gypsum plant in the country and incidentally the newest in the Gold Bond chain. With building on the upgrade and big jobs developing almost overnight, service on shipments really counts these days. Gold Bond Dealers in the Southeast are assured of quickest service with this immense plant "right in their own backyard."



TWO OF THE TEN MAMMOTH GYPSUM PLANTS



Gold Bond's Gypsum Wallboard Plant at Akron, N. Y., showing the 600 foot continuous strip of wallboard coming through and passing under the ironing belt.



(above) Note the streak of light on the surface of this panel. Another adaptation of the "electric eye." This modern device operates a mechanical cut-off, insuring accurate board lengths.

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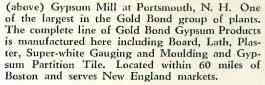
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(left) National City, Mich., Plant. Insures quick service to Detroit and Chicago markets. Shipments also move cross-lake to Milwaukee and other Wisconsin points.

NEW HAMPSHIRE AND BRONX GYPSUM PLANTS





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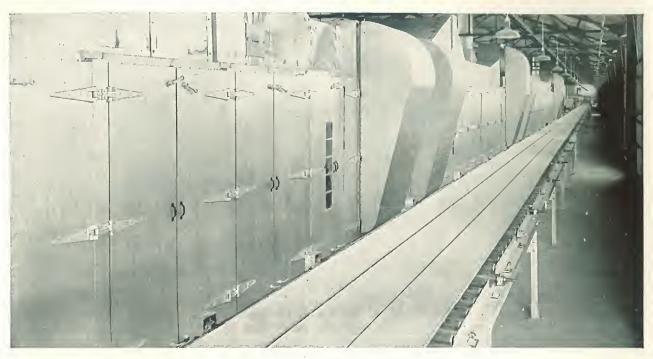
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completed in May, 1940.

VIEWS IN GYPSUM PLANTS AND QUARRY



The immense dryer at the new Savannah Plant. At the right is shown gypsum lath (three 16" width panels) on the forming belt. At the end of this 600 ft. runway, gypsum lath and gypsum wallboard are cut into standard lengths and sent through the huge oven which dries the gypsum core slowly and uniformly. When the panels leave the dryer, they are thoroughly "seasoned" and ready for use.

(below) Gypsum quarry at National City, Mich. Here the vein of gypsum rock is only a few feet below the surface. A Diesel-driven "stripper" removes the top dirt and exposes the precious white rock.



(below) This gasoline motor-hoist piles a ton and a half of plaster 20 ft. high, in one operation. This is white moulding plaster. Base plaster is never stored at the plants and is generally shipped the same day that it is made.

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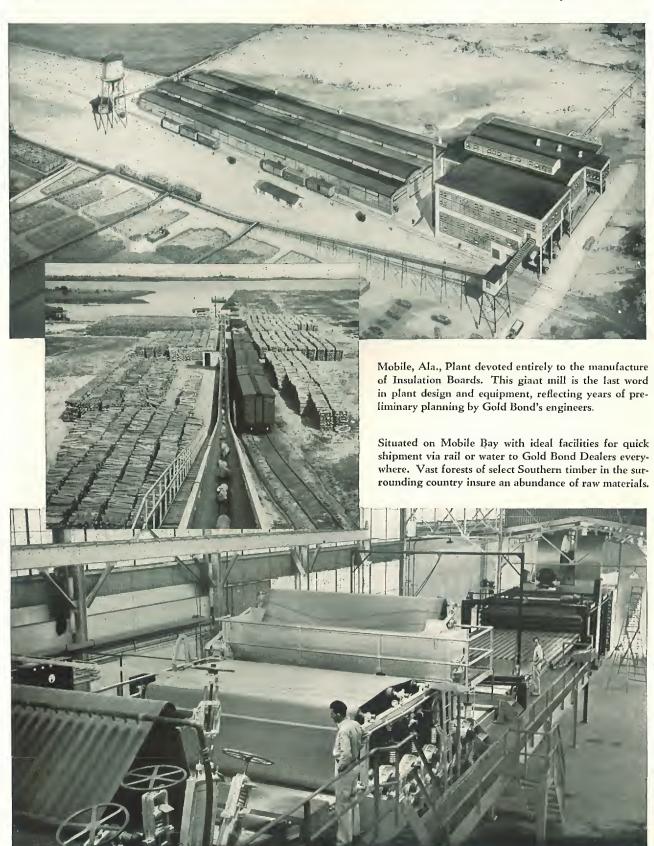
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NEW INSULATION PLANT IN MOBILE, ALA.



METAL LATH PRODUCTS AND CASEIN PAINT



(above) Metal Lath Plant at Niles, Ohio. Here is manufactured a full line of Metal Lath, Corner Beads and other accessories. Two important additions to the Gold Bond Line . . . a combination Arch-Corner Bead and a new style ½-in. Flat Rib Lath, were recently developed at this plant.

(below) Making Gold Bond Casein Paint at the Bronx Plant. This finer "one hour" interior paint is the choice of decorators for its velvety smoothness, greater hiding power and delicate fade-proof colors. Light reflection for the White has been stepped up to over 98%.

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LIME QUARRY AND FINISH LIME PLANT



(above) Gold Bond's immense lime quarry at Luckey, Ohio, in the heart of the rich Ohio dolomite lime field. Ohio finish lime is known the country over for its purity, whiteness and all-around superior quality. Only the whitest rock is used.

(below) Model Gold Bond Lime Plant at Luckey, Ohio, termed by experts the finest in the country. Constant laboratory supervision plus the most modern equipment, including automatically controlled furnaces, insure uniformity of quality.



AGRICULTURAL AND INDUSTRIAL LIME

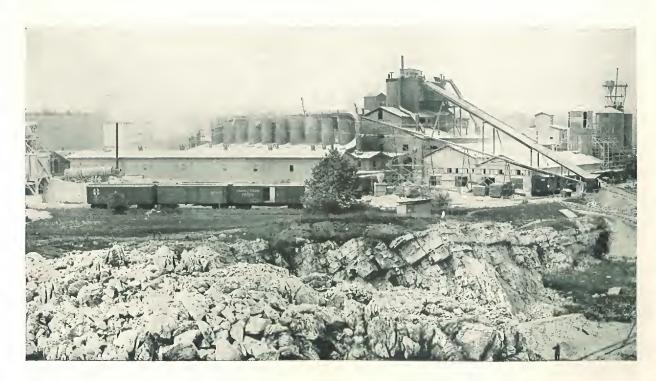


(above) Lime Plant at Oranda, Va. Limestone mined here and at the York, Pa., Plant excels in purity and high-calcium content. Oranda specializes in Agricultural and Spray Lime, also Mason's and Industrial Lime for Chemical uses.

(below) Lime Plant at York, Pa. Specializes in the manufacture of high-calcium lime products for industrial and chemical purposes, used in the manufacture of paper, bricks, and steel products; for water softening and for dozens of other uses.

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GOLD BOND'S NEW RESEARCH LABORATORIES



Research and laboratory control have played major parts in Gold Bond's progress. The new laboratory pictured here with its staff of research experts . . . men who are specialists in building materials and construction . . . reflects the importance that National Gypsum places on this phase of the business. The complete responsibility for the maintenance of Gold Bond quality standards and the development of new products is in the hands of this department,

In addition to the main laboratories at Clarence Center, a completely equipped laboratory is maintained at each plant where samples of finished products are inspected and tested at the end of each run. Every bag of plaster and lime; every panel of wallboard and lath must measure up to Gold Bond standards.





GOLD BOND STANDARD GYPSUM LATH

The Modern Plaster Base with Core of Solid Gypsum
Builds Stronger Walls and Ceilings

GOLD BOND GYPSUM LATH is made under the same exclusive patents as Gold Bond Gypsum Wallboard, the only difference being that the sizes are smaller and the gypsum core is encased in a heavy fibre sheet that bonds tightly with plaster. The long sides have closed edges and are round, as illustrated. The short ends are cut perfectly square.

Superior Bond to Plaster

The bond of plaster to Gold Bond Gypsum Lath is not dependent on mechanical keys but is obtained by the felting action of billions of gypsum crystals in the set plaster embedding themselves onto the surface of the Gold Bond Gypsum Lath during the setting action. Authoritative tests have shown this bond to be four times as great as any mechanical bond such as that obtained on wood lath, metal lath, etc.

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Fireproof . . . Adds Structural Strength

The solid gypsum core of Gold Bond is non-inflammable and non-combustible. In repeated blow-torch tests, has demonstrated its ability to resist fire. Numerous testimonial letters have been received telling how effectively Gold Bond has withstood scorching flames and prevented the spread of fire by protecting the wood studs.

The strength and rigidity imparted to walls and ceilings by the use of Gold Bond Gypsum Lath adds considerably to the structural strength of the building as a whole. When covered with $\frac{1}{2}$ inch of plaster, it makes a wall $\frac{7}{8}$ inch thick . . . solid gypsum rock.

Won't Warp or Buckle—Saves Plaster Cracks

Gold Bond Gypsum Lath will not expand, contract, warp or buckle. One of the chief reasons for plaster cracking is the twisting or warping of the lath. This can't happen with Gold Bond as the rock-like panels lay perfectly flat and are not affected by dampness or climatic changes.

Cuts Labor Cost and Saves Plaster

With wood lath, spaces are left between the laths and much of the plaster goes into these spaces to form "keys." No "keys" are required with Gold Bond. The sturdy panels are butted together and *all* the plaster goes on the surface of the lath. This saving of plaster is considerable on a house of average size.

Application costs are cut, too, as the large panels of Gold Bond are applied much quicker than the narrow wood lath strips. Only 16 nails are needed to a 16" x 48" panel—4 nails to each stud—studs and joists to be spaced 16" on centers.



Showing the distinctive indented surface of Gold Bond Gypsum Lath. The solid gypsum core is encased in this tough fibre covering.

Sizes and Thicknesses

3/8" Thick	16" x 32"	6 panels per bdle.	21 1/3 sq. ft.
3/8" Thick	16" x 36"	6 panels per bdle.	24 sq. ft.
3/8" Thick	16" x 48"	6 panels per bdle.	32 sq. ft.
$\frac{1}{2}$ " Thick	16" x 32"	6 panels per bdle.	21 1/3 sq. ft.
$\frac{1}{2}$ " Thick	16" x 36"	6 panels per bdle.	24 sq. ft.
1/2" Thick	16" x 48"	6 panels per bdle.	32 sq. ft.

Also made under the name Gold Bond Liner Board with non-indented surface. . Thicknesses of $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ ". Sizes of 24" x 48", 32" x 36" and 32" x 48".

Gold Bond Gypsum Lath comes in handy bundles that are light and easy to handle. A bundle of 16" x 48" x $\frac{3}{8}$ " contains 6 panels.



For Gold Bond Gypsum Lath with Aluminum Foil Insulation, See Page 79.

GOLD BOND PERFORATED GYPSUM LATH

Embodies All the Features of Standard Gypsum Lath

Plus the Important Advantage of Greater Fire Protection

GOLD BOND PERFORATED GYPSUM LATH is standard lath with holes about the size of a nickel drilled through the panels. When the surface is plastered, enough of the plaster is forced through the perforations to form mushroom-like "keys" as pictured in the next column. Insures a double bond with plaster—the natural or chemical bond that occurs between the indented surface of the lath and the plaster, plus the mechanical bond provided by the "keys."

The perforations are so staggered to minimize the number of holes across the width of the panels, thereby achieving the advantage provided by the perforations without sacrifice of strength.

One Hour Fire Rating

Gold Bond Perforated Gypsum Lath has qualified for a one hour fire rating for walls and ceilings when applied as follows:

Walls—Gold Bond 3/8 in. Perforated Gypsum Lath plastered in the usual manner with 1/2 in. of gypsum plaster.

Ceilings—Gold Bond 3/8 in, Perforated Gypsum Lath applied with five nails to each joist, Gold Bond 3 in. Stripite over all joints and plastered with 1/2 in. thick of gypsum plaster.

These official tests were made according to Standard Specifications of Fire Tests of Building Constructions and Materials, ASA No. A2, 1934.

Other Advantages That Combine to Make This an Outstanding Plaster Base

In addition to its one-hour fire rating, Gold Bond Perforated Gypsum Lath offers these important advantages over old-style inflammable wood lath: It is moisture proof and unaffected by climate changes. Won't expand, contract, buckle or twist. The rock-like panels add greater strength so that the plaster walls and ceilings are better able to withstand structural strains. Homes in which this fireproof modern plaster base is used have an extra appeal to prospective buyers.

Application

Gold Bond Perforated Gypsum Lath is applied the same as standard gypsum lath... four nails to each stud—the nails to be 4 in. apart and 3/8 in. from edge. For ceilings with one hour fire rating, follow instructions under "One Hour Fire Rating" in first column.

Size and Thickness

Gold Bond Perforated Lath is 3/8 in, thick and supplied in two sizes, 16x32 in, and 16x48 in. Packed 6 panels to a bundle,



Mushroom-like keys automatically form on the reverse side which grip the lath tightly.



Sturdy, rock-like panels of Gold Bond Perforated Gypsum Lath are applied quicker than wood lath and give wood framing the fire protection it needs.



As the plaster is trowelled on the workman can feel the perforations take hold. The small picture above shows what actually happens on the reverse side of the lath.

THE GOLD BOND "FLOATING WALL" SYSTEM

A New Patented Method of Building Walls and Ceilings With "Free Action" to Withstand Structural Strains and Vibrations Cuts Room-to-Room Noise . . . One Hour Fire Rating for Walls

THE GOLD BOND "Floating Wall" System promises to completely revolutionize old-time methods. It provides the three all-important features of better wall and ceiling construction so much desired by every home builder but previously denied because of prohibitive cost.

The entire system is built around a new type of lath nail—the "Floating Wall" nail—a large headed nail, with the head encased in deadening felt in such a way as to provide resiliency... then reinforced with a double thickness of expanded metal... and the whole fabricated into one convenient unit for the lather. These special nails are used between the panels of Gold Bond Gypsum Lath, building an elastic "Floating Wall," free from rigid attachments to framing members. No plaster can touch the head of nail... no direct metallic contact between plaster and wood framing.

Provides New Features Never Before Obtainable in Moderately Priced Homes

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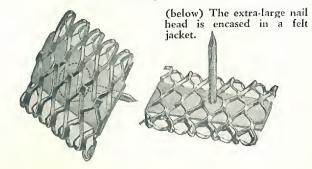
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The Gold Bond "Floating Wall" System insures these added advantages: (1) The danger of plaster cracks occurring from vibration or settling of the building is practically eliminated. (2) Sound transmission from one room to another is effectively checked. (3) One hour fire protection is provided for the wood framing. Heretofore, only hotels, fine buildings and the better class of apartments could boast of these features. Now they can be built into homes in every price class from a \$2,500 cottage to a \$60,000 mansion.



The "Floating Wall" Nails are driven between the panels of gypsum lath,

The "Floating Wall" Nail



(above—left)

Showing the felt covered by the metal reinforcing with the large head of the nail dotted in.

Added Cost Per Home Is Only a Few Dollars

No special skill is required to erect walls and ceilings by this new method. Lathers get the "hang" of it in a few minutes and if anything, labor cost is less. The only special material required is the "Floating Wall" nails. They cost a little more than standard nails but only four "Floating Wall" nails are used along edge of each 48 in. gypsum lath panel, as compared with sixteen nails per panel under the former method.



A typical "Floating Wall" job ready for plastering in the regular manner.

The Gold Bond "Floating Wall" System (Continued)

(1) Provides Resiliency . . . Lessens the Danger of Plaster Cracks

The chief reason for plaster cracks is the natural movement of framing members. There is no way to avoid this movement which in most cases is almost imperceptible. What the "Floating Wall" does is to get around the motion, so that although it still exists, it can do no harm to the plaster wall or ceiling.

Under normal conditions, with a completely rigid tie to the studs and joists, the twisting or warping of the framing members of even a few thousandths of an inch can result in plaster cracks. The "Floating Wall" system provides a resilient tie between the stud and the plaster itself. In effect the wall actually "floats" although strong and rigid and outwardly no dif-

ferent in appearance than a wall of conventional construction.

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Months of careful testing in the Gold Bond Laboratories and systematic checking of actual jobs prove the "Floating Wall" system is crack resistant almost beyond belief. In a typical deflection test, a series of identical wall areas were built with wood lath, gypsum lath and the Gold Bond "Floating Wall" System; then plastered under standard specifications. At ½ in. deflection, the first crack appeared in the plaster over wood lath. Over Gypsum lath, cracks appeared at a deflection of ½ in. Deflection of 13½ in. was needed to put a hair-line crack in the "Floating Wall." As every builder knows, deflection of 13½ in. is almost inconceivable on an actual job.

(2) Reduces Sound Transmission from Room to Room

Walls built to resist passage of sound from one room to another have always been impractical in standard residential construction for the same reason that crack-proof walls and fire-proof walls have been out of the question—high cost. Now, with the "Floating Wall" System, at little or no extra cost, all three features can be provided in one operation.

Sound Transmission Loss is the measure of effectiveness that a wall, ceiling or floor area retards the passage of sound through

the structure. This value is measured in decibels which are simply units of sound intensity in scale of audibility.

In a test made by the National Bureau of Standards in Washington, D. C., the "Floating Wall" received an average transmission loss of 47.6 decibels. This rating reflects the amount of sound that is actually lost or dissipated—enough to completely nullify the passage of ordinary conversational sounds through a wall partition from one room to another.

(3) One Hour Fire Rating For Walls . . . Protects Wood Framing

The chief function of "fire-proof" construction in residential building is its ability to retard the spread of fire for a reasonable length of time—long enough for fire apparatus to arrive.

To prove the effectiveness of the "Floating Wall" construction to withstand fire, tests were conducted in a leading laboratory in accordance with standard fire test specifications, A2-1934.

A standard wood frame partition approximately 16 ft. x about 10 ft. 4 in. was constructed with Gold Bond Gypsum Lath on each side, applied with "Floating Wall" nails. Each face was

finished in the regular manner with ½ in. Gold Bond Plaster and lime putty. During the test a load equal to the allowable working load on the net area of the wood studs was applied, totaling about 15 tons for the 16 ft. wide partition.

At the end of the test this "Floating Wall" was shown to have qualified for a one hour fire rating for walls under the American Standard Association regulations. This means that this type of construction can stop the spread of fire for at least one hour under normal conditions.



No special equipment needed except the "Floating Wall" nails which are sold by Gold Bond dealers along with the Gold Bond Gypsum Lath.



Lath is applied to ceilings the same as to side walls except an extra row of nails is used along the center of the panels. See detail drawing on next page.



Plastering is done in the usual manner. The expanded metal over the nail heads acts as extra reinforcing and insures uniform thickness of plaster.

The Gold Bond "Floating Wall" System (Continued)

STANDARD SPECIFICATIONS

Scope of Work

Gold Bond "Floating Wall" System shall be used in the following locations:

(Ltst)

Examination of Framing Structure

Lather shall examine all framing for accuracy and proper nailing before applying lath. Openings shall be framed and electrical outlets properly located. Any defects shall be reported to architect and no lathing shall be done until such defects have been corrected.

Material

- 1. All materials shall be manufactured by the NATIONAL GYPSUM COMPANY and shall be delivered to the job in their original containers.
- 2. Lath-Gold Bond Gypsum Lath (16 in. x 48 in. x 1/4 in. thick).
- Nails—Gold Bond "Floating Wall" nails shall be used exclusively.
- **4. Joint Reinforcing**—Gold Bond Galvanized Corner Bead for external angles. Gold Bond 3 in. Cornerite for internal angles.
 - 5. Plaster

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- a. Base Coat-Gold Bond Plaster (specify type).
- b. Finish—Gold Bond Finish Lime with Gold Bond Superwhite Gauging Plaster. Alternates—Gold Bond Smooth Trowel Finish, Gold Bond Sand Float Finish, Gold Bond Color Texture.

Application

- 1. All walls, ceilings, and partitions as specified shall be covered with Gold Bond Gypsum Lath. Studs and joists shall be spaced 16 in. on centers.
- 2. Lath shall be applied with back of lath facing stud, joists or furring, taking care to break joints. Vertical joints shall not occur opposite each other on same stud.
- 3. Lath shall be cut by scoring with a knife or hatchet and then break over a straight edge.
- 4. Lath (16 in. x 48 in.) shall be nailed to sidewalls with four "Floating Wall" nails driven in the joints between the lath at each stud. Ceilings shall be nailed as above together with one "Floating Wall" nail driven midway between folded edges at each joist or furring strip. Core of boards shall be ruptured with point of lather's hatchet where "Floating Wall" nails are not placed in between joints.
- 5. Any openings for outlet boxes, etc., shall be clean and neatly fitted to proper sizes and location.

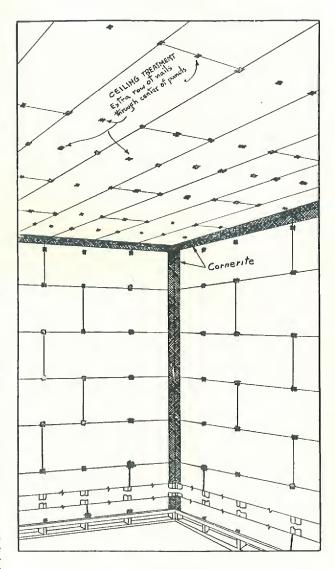
Reinforcing Angles

- 1. All internal angles of walls and ceilings shall be reinforced with Gold Bond 3 in. Cornerite and securely nailed.
- 2. All external angles shall be reinforced with Gold Bond Corner Bead (specify style) securely nailed.

Plastering

Follow standard specifications for plastering over gypsum lath. Plaster shall be full $\frac{1}{2}$ in. thick.

Showing Wall and Ceiling Placing of Gold Bond "Floating Wall" Nails



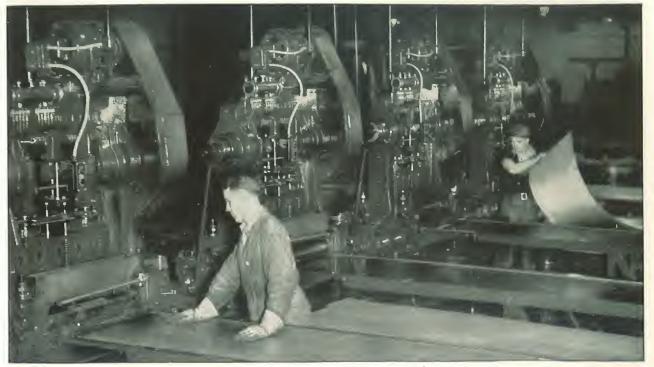
Wall Treatment—Four "Floating Wall" Nails are used along the 48 in. side of each panel of Gold Bond Gypsum Lath.

Ceiling Treatment—Same as for walls except there is an extra row of nails along the center of the lath panels (as indicated by arrows in above drawing), one center nail to each stud. The lath should be punctured with point of lather's hatchet to provide holes for the center nails.

Internal corners should be reinforced with 3 in. Gold Bond Cornerite. External corners should be covered with Gold Bond Corner Bead.

Patented and Exclusive to Gold Bond

The Gold Bond "Floating Wall" System is patented and available only through bona fide Gold Bond dealers . . . Upon request, National Gypsum Company will send, gratis, an illustrated book describing this system in detail.



Making the New Style Flat Rib Lath at Gold Bond's Metal Lath Plant in Niles, Ohio

GOLD BOND METAL LATH PRODUCTS

Most Gold Bond Metal Lath Products Are Made From Steel Sheets Manufactured by the Open Hearth Process

N ATIONAL GYPSUM COMPANY manufactures at its Niles, Ohio plant a full line of metal lath products and accessories.

For years metal lath, because of its unmatched strength and one hour fire rating for both walls and ceilings, has been invariably specified as the plaster base for buildings and the better class of homes. Lately it has come into common use for all types of residences including homes costing as little as \$4,000. As one expert puts it, "Savings realized on repair and decorating bills over the years are every bit as important to owners of small homes as to those who own mansions."

The National Board of Fire Underwriters gives Metal Lath with gypsum plaster on wood studs a one hour fire rating; second only to reinforced concrete and above all others in resistance to earthquake and explosion shocks.

Only a few of the most commonly used products are pictured here, including the new Arch Corner Bead, an exclusive Gold Bond feature. Other products are: Corner Beads (5 in. Wing, Expansion, Scalloped, Wide Flange, Standard Bull Nose and Bull Nose Expansion), Base Beads (Curved Point and Expansion Flush), Corner Bead Clips and Channel Clips, Hot Rolled Channels, Galvanized Tie Wire, Pencil Rods, Coal Doors and Steel Basement Sash.

An illustrated catalog describing the complete line will gladly be furnished by writing Metal Lath Division, NATIONAL GYP-SUM COMPANY, Buffalo, N. Y.



Partitions made of Gold Bond Metal Lath and plastered in the customary way are rated by the National Board of Fire Underwriters as second only to reinforced concrete.

GOLD BOND METAL LATH

Gold Bond Small Diamond Mesh Lath

Can be used on any type of metal lath job. It constitutes better than 50% of all the metal lath sold.

Gold Bond Small Mesh boasts of having as small a mesh as any diamond mesh manufactured; containing approximately 3000 more keys per square yard than the regular $\frac{3}{8}$ in. mesh. All sheets lay perfectly flat and each sheet has re-squared ends assuring full covering width. Regular $\frac{3}{8}$ in. mesh can be furnished upon request. Is made from open hearth box annealed sheets.

Standard Weights—2.2, 2.5, 3.0, 3.4 lb. Furnished in painted steel, copper bearing and Armco Iron. Galvanized in 2.5 and 3.4 lb. only.

Sheet Sizes

-24 in. x 96 in. 9 sheets per bundle or 16 sq. yds.

-27 in. x 96 in. 10 sheets per bundle or 20 sq. yds.

Gold Bond 1/8-in. Flat Rib Lath

Primarily designed to meet a growing demand for a more rigid expanded metal lath, and a more economical plastering job . . . 1280 meshes to a square foot, providing more plaster keys than any other like product on the market.

Gold Bond $\frac{1}{8}$ -in. Flat Rib saves time and money in erection costs as the new size—27 x 96 in.—can be applied in exactly the same time as the usual 24 x 96 in. sheets.

Standard Weights—2.75, 3.0 and 3.4 lb. Furnished in painted steel and copper bearing steel. Galvanized in 3.4 lb. only.

Sheet Sizes

-24 in. x 96 in. 9 sheets per bundle or 16 sq. yds.

-27 in. x 96 in. 10 sheets per bundle or 20 sq. yds.

Gold Bond 3/8-in. Rib Lath

Is generally used for ceiling and for concrete reinforcing in floors in connection with steel joists, junior beams, etc.

Gold Bond ½ in. Rib Lath is outstanding for its rigidity. Ribs are 4 in. on center. Sheets nest perfectly when lapped providing a smooth base for plaster, with bulges eliminated and plaster waste reduced. Manufactured from open hearth box annealed sheets.

Standard Weights—2.5, 3.0, 3.4 and 4.0 lb. Furnished in painted copper bearing steel and Armco Iron. Galvanized in 3.4 lb. only.

Sheet Size-24 in. x 96 in. 9 sheets per bundle or 16 sq. yds.

Gold Bond 3/4-in. Rib Lath

Used mainly as a form and reinforcement in concrete slab floor and roof construction. Won't bulge or sag. Ribs are spaced 4 in. on centers 3/4 in. deep. . . . Also adapted for use as a plaster base in the construction of 2-in. solid partitions. Due to the rigidity and reinforcing feature of the ribs, no studs are required.

Standard Weights—50 lb., .60 lb., .75 lb. per sq. ft. Furnished in painted steel and copper bearing steel. Galvanized in .50 lb. and .75 lb. weights. Armco or pure iron in .75 lb. weight.

Sheet Sizes-24 in. x 6, 7, 8, 9, 10, 11, 12 ft. 9 sheets per bundle.

Bostwick Sheet Lath

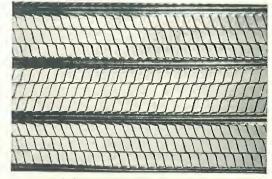
Is used generally for tile backing due to its being the most rigid lath manufactured. It requires considerably less plaster than any other type of metal lath and therefore, is often used on residences and large apartment buildings. The trough formation of the ribs creates a suction and makes it the ideal lath for overhead work on ceilings. Manufactured from open hearth annealed sheets.

Standard Weights-4.5 lb. in painted and 5.5 lb. in galvanized.

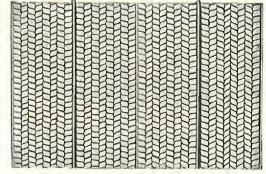
Sheet Size-24 in. x 96 in. 9 sheets per bundle or 16 sq. yds.



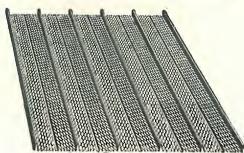
Gold Bond Small Diamond Mesh Lath



Gold Bond 1/8-in. Flat Rib Lath



Gold Bond 3/8-in. Rib Lath



Gold Bond 34-in. Rib Lath

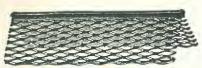


Bostwick Sheet Lath

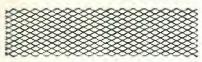
GOLD BOND METAL LATH ACCESSORIES



Gold Bond Arch Corner Bead



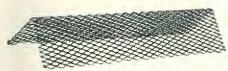
Gold Bond Standard Expansion Corner Bead



Gold Bond Stripite



Gold Bond Standard Base Bead



Gold Bond Cornerite



Gold Bond Picture Mould

Gold Bond Arch Corner Bead

Use—Gold Bond Arch Corner Bead is the all-purpose corner bead. Used for vertical and horizontal corners or may be easily bent for arches. Full description on next page.

Stock Lengths—6, 7, 8, 9, 10 and 12 ft. Made in 26 gauge. 24 gauge on special order. Packed 10 pieces per bundle. Weighs 200 lbs. per 1000 lin. ft.

Gold Bond Standard Expansion Corner Beads

Use—Gold Bond Standard Expansion Corner Beads can be used in all types of construction. Forms an exceptionally fine key due to the reinforcing given by the 2½ in. wings. Is easily erected.

Stock Lengths—6, 7, 8, 9, 10 and 12 ft. Made in 26 gauge. 24 gauge on special order. Shipped in crates of approximately 500 or 1000 ft. only. Weighs 208 lbs. per 1000 lin. ft.

Gold Bond Stripite

Use—Gold Bond Stripite is diamond mesh lath cut into strips. Used over joints, around window and door frames in construction where metal lath is not used throughout. Standard in painted steel. May be had in copper bearing or galvanized steel.

Sizes—2, 3, 4, 6 or 12 in. wide by 96 in. long. Packed 63 pieces per bundle (504 lin. ft.) 3x96 in. Stripite weighs 60 lbs. per 1000 lin. ft.

Gold Bond Standard Base Bead

Use—Gold Bond Standard Base Bead is used as a ground where the cement base is to be divided from the plastered wall. Assures a straight and perfect division line. Made in both ½ and ¾ in ground.

Stock Length—10 ft. only. 26 gauge. 10 pieces per bundle. Weighs 180 lbs. per 1000 lin. ft.

Gold Bond Cornerite

Use—Gold Bond Cornerite is diamond mesh lath cut into strips and bent to a right angle. Used in interior corners of walls and ceilings over wood lath, gypsum lath, etc. Standard in painted steel. May be had in copper bearing or galvanized steel.

Sizes—2, 3, 4, 6 or 12 in. wide by 96 in. long. Packed 63 pieces per bundle (504 lin. ft.) 3x96 in. Cornerite weighs 125 lbs. per 1000 lin. ft.

Gold Bond Picture Mould

Gold Bond Picture Mould is a metal concealed picture moulding. It is erected before walls are plastered and is absolutely invisible when wall is finished.

Stock Length—10 ft. only. 26 gauge. 10 pieces per bundle. Weighs 230 lbs. per 1000 lin. ft.

GOLD BOND "HOLLOW WALL" SYSTEM

A Simplified System of Steel Stud "Hollow Wall" Construction Installed Quicker with Substantial Savings in Cost. Extremely Sturdy Walls with High Insulation Value That Effectively Check Room-to-Room Noise

> For the first time—a steel stud that stands on its own feet, eliminating floor track! This exclusive feature of the new Gold Bond "Hollow Wall" System simplifies and cuts the cost of fireproof, non-bearing partitions for apartments, hotels, office buildings, hospitals, etc.

No Floor Track Needed . . . Saves 50% on Track

Since you use track on the ceiling only—none on the floor except where unusual conditions demand it—you save 50% of the usual track footage. The base of the stud is anchored with rawl drives or concrete stub nails . . . a quick and easy operation, particularly if you're working on wood or smooth concrete flooring. Three units build the framework, ready for lath and plaster. (1) The Gold Bond Steel Stud with special floor brackets. (2) The speedy new Gold Bond "Turn-Clip" Fastener that saves time in anchoring the stud to the ceiling track. (3) Gold Bond Ceiling Track, same

design as the stud.

Six Major Features

One-Hour Fire Rating-The Gold Bond "Hollow Wall" provides one-hour fireproof protection-or more-depending on the thickness of plaster specified. Meets building code requirements for hotels, schools, office buildings and similar structures.

Light Weight-Complete with lath and plaster the "Hollow Wall" weighs only 18 to 20 lbs. per square foot, permitting lighter floor construction than would be needed to support masonry partitions.

Crack Resistance—Since no part of the "Hollow Wall" is affected by dampness, there's no swelling or warping to cause plaster cracks. Gold Bond Metal Lath, moreover, gives the plaster extra resistance to vibrations and impacts.

Sound Insulation-Gold Bond "Hollow Walls" stop noise transmission more effectively than either wood or masonry partitions of equal thickness.

Walls Up To 71/2 In. Thick-As shown below, Gold Bond "Hollow Walls" range from 31/2 in. to 71/2 in. thick, affording ample space for pipes, conduits, wire, ducts, vent pipes, etc.

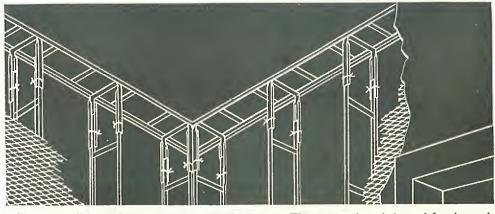
Stud Size	Stud Wt., Mft.	Finished Wall Thickness
2"	321 lb.	3½" 4½" 4½" 5½" 7½"
3"	331 lb.	41/2"
3½" 4"	341 lb.	43/4"
4"	356 lb.	51/2"
6"	391 lb.	71/2"

All stud sizes furnished in lengths up to 12 ft.



It takes but a second to slip this new ceiling track fastener in place, "Fingers" on the cross bar at the top firmly grip the ceiling track.

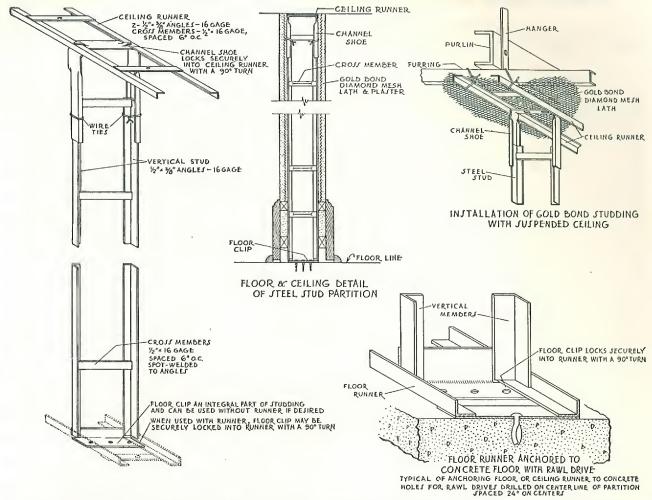
Economy—Gold Bond "Hollow Walls" compare favorably with the cost of masonry partitions . It's easier for the electrical and plumbing trades to install their equipment . . . No patching extras necessary . . . Handling and trucking cost is reduced . . . And practically no clean-up expense.



Top view of the Gold Bond "Hollow Wall" System. The same style unit is used for the studs and the ceiling track. Next, the "Turn Clip" is snapped into place and securely bound to the studs with tie-wire.



CONSTRUCTION DETAILS, GOLD BOND "HOLLOW WALL" SYSTEM



Free. An illustrated folder on the Gold Bond "Hollow Wall" System with construction details in larger size than the above will gladly be mailed upon request to any of our offices.

Specifications for the Gold Bond "Hollow Wall" System

Scope of Work

Where hollow steel stud partitions are indicated on the plans or written in specifications, the Gold Bond Hollow Stud System shall be used.

Materials

- Gold Bond Steel Stud, Ceiling Track and "Turn Clip" Fastener.
- 2. Gold Bond $\frac{1}{6}$ -in. Flat Rib Lath consisting of stiffening ribs $\frac{1}{2}$ ins. on center with three rows of herringbone meshes between ribs, and coated with black asphaltum paint.
 - 3. Gold Bond No. 18 ga. soft annealed Galvanized Tie Wire.
- 4. Gold Bond 3-in. Cornerite coated with black asphaltum paint.
- 5. Gold Bond Corner Beads, Picture Moulding and Base Screed.
 - 6. Rawl Drives or Concrete Stub Nails.
- 7. Gold Bond Base Coat Plaster. Gold Bond Super White Gauging Plaster and Gold Bond Finish Lime.

Application

- 1. Track and floor clip shall be secured to ceiling and floor in a manner approved by the architect. Steel stud shall be placed between legs of "Turn Clip" fastener. Two strands of No. 18 galvanized wire shall be passed around legs of clip and stud, and tied securely.
- 2. Studs shall be spaced not to exceed 19½ ins. on centers. If spacings wider than 19½ ins. are desired, but not to exceed 31½ ins., 3.4 lb. Gold Bond 3%-in. Rib Lath shall be used.
- 3. Metal Lath shall be erected with the long dimension of the sheet across the supports. Metal Lath shall be lapped at sides not less than ½ in., and at ends not less than 1 in. Sheets shall be wire tied to studs with No. 18 galvanized wire at intervals not to exceed 6 ins.
- 4. All internal angles shall be lined with 3-in. Cornerite and securely tied along edge.
- 5. Galvanized Corner Beads, Picture Moulding and Base Screeds, wherever indicated, shall be wired to the partition after the lath is applied.

Plastering

Follow standard specifications for plastering over Metal Lath as outlined in the Gold Bond Handbook—1940 issue.

GOLD BOND 2" SOLID PARTITION SYSTEM

A Simplified System of Fireproof, Non-Bearing Partitions for Housing Developments, Offices, Hotels, Apartments and Hospitals . . . Sturdy, Permanent Walls That Really Conserve Space, Resist Cracks, Reduce Room-to-Room Noise



Z

MPORTANT features of the Gold Bond 2-in. Solid Partition System that have earned the instant approval of architects and contractors are first, the simple but very sturdy construction; second, low cost; third, quick installation. Here is a truly economical system that has proven its practicability time and again on large housing projects. Is strongly recommended for fire-proof, non-bearing partitions in hotels, apartments, hospitals, office buildings and housing developments.

Only Three Units Required

As illustrated below, only three units are used in this simplified system—the ceiling runner, floor runner and the steel studs which are standard 3/4-in. cold rolled channels. For the plaster base, Gold Bond 1/8-in. Flat Rib Lath is recommended. This product, specially designed for use with this system, provides greater rigidity and permits the metal studs to be spaced 20 in.

Economy of Space

The chief feature of the Gold Bond 2-in. Solid Partition is, of course, its ability to conserve space. Compared with ordinary wood stud and lath partitions, it saves from 2 to 3 ins. per wall—a tremendous overall saving on any large building such as a hotel or apartment. Conservative figures show this saving to be as much as 7%, or to put it another way, it means an increase of 7% in rentable floor space.

Other Advantages

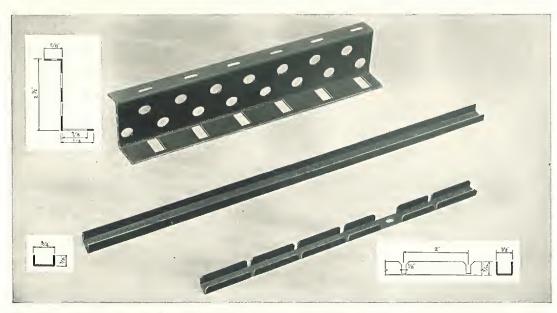
Fire Protection—Official tests have been made subjecting this system to heat and flame for a 4-hr. period without failure—the temperature reaching a high of 2000 degrees.

Sound Insulation—Superior to hollow 4-5 in, wood stud walls of the same weight in reducing sound transmission. Noise reduction factor of 39 decibels.

Crack Resistance—This monolithic unit of solid steel and gypsum, securely anchored to floor and ceiling, offers stubborn resistance to tension, shear, impact and vibration.

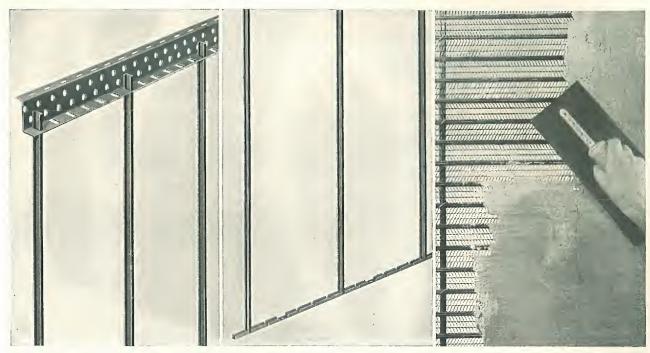
Light Weight—Gold Bond 2-in. Solid Partitions weigh only 18½ lbs. per square foot as compared with 28 lbs. for 3-in. clay tile and plaster.

Free—Upon request, National Gypsum Company will gladly mail an illustrated book, "The Gold Bond 2" Solid Partition System," describing this system in detail with charts and complete architectural drawings.



These three units comprise the simplified Gold Bond 2" Solid Partition System. At top, the "Z" ceiling runner; center, the 3/4-in. steel stud (standard Gold Bond Cold Rolled Channel); bottom, improved channel-shaped floor runner.

THE MOST EASILY INSTALLED SOLID PARTITION SYSTEM EVER DEVISED



(1) Gold Bond "Z" ceiling runners are attached with concrete stub nails or rawl drives. The steel studs are inserted through the perforations and incidentally, variations up to 2½ ins. in ceiling height can be automatically taken care of without cutting. (2) Gold Bond floor runners are fastened every 12 ins. with concrete stub nails or rawl drives. Channels fit securely into slots without the necessity of tying. (3) Gold Bond ½-in. Flat Rib Lath is fastened to the studs with wire providing a rigid, all-metal base for the succeeding coats of Gold Bond Plaster.

Specifications for the Gold Bond 2-Inch Solid Partition System

Scope of Work

Where 2-in. solid partitions are indicated on plans or written in specifications, the Gold Bond Solid Partition System shall be used.

Materials

- 1. Gold Bond "Z" Ceiling Runner made from 20 gauge steel. Painted one coat asphaltum paint.
- 2. Gold Bond 3/4-in. Cold Rolled Channel Studs 16 gauge. Painted one coat asphaltum paint.
- 3. Gold Bond Floor Runner. Slotted every 2 ins. with a perforated flat surface every foot for securing to floor.
- 4. Gold Bond $\frac{1}{8}$ -in. Flat Rib Lath consisting of stiffening ribs $\frac{1}{2}$ ins. on center with three rows of herringbone meshes between ribs, and coated with asphaltum paint.
 - 5. Gold Bond 3-in. Cornerite.
 - 6. Gold Bond No. 18 gauge, Galvanized Tie Wire.
 - 7. Rawl Drives or Concrete Stub Nails.
 - 8. Gold Bond Corner Beads, Picture Moulding and Base Screed.
- 9. Gold Bond Base Coat Plaster; Gold Bond Gauging Plaster and Gold Bond Finish Lime.

Application

- 1. The Gold Bond "Z" Ceiling Runner and Floor Runner shall be securely fastened to ceiling and floor with $\frac{1}{2}$ -in. concrete stubnails or rawl drives in a manner approved by the architect.
- 2. Channel Studs shall be inserted through holes provided in "Z" Ceiling Runner, then dropped into slots in floor runner. When Metal Lath is being applied at ceiling, channel shall be tied through perforations provided in ceiling runner.

3. Channel Studs shall be spaced not to exceed 20 ins. on center. If wider spacings are desired up to 31½ ins., use Gold Bond 3/8-in. Rib Lath. Complete spacing data given in table below:

Type of Lath	Weights, Lbs. per Sq. Yd.	Spacing of Supports
Gold Bond Diamond Mesh Lath	2.2	12 in.
	2.5	16 in.
	3.0	16 in.
	3.4	16 in.
Gold Bond Flat Rib Lath	2.75	16 in.
	3.0	20 in.
	3.4	20 in.
1	4.0	24 in.
Gold Bond 3%-in. Rib Lath	3.0	24 in.
	3.4	31½ in.
	4.0	31½ in.

- 4. Gold Bond ½-in. Flat Rib Lath Painted, shall be applied to only one side of channel stud with the long dimension of the sheet across the supports. Sheets shall be lapped at sides by nesting outside ribs. Ends shall be lapped 1 in. Lath shall be wire tied to studs with No. 18 gauge galvanized tie wire at intervals not to exceed 6 ins.
- 5. All internal angles shall be lined with 3-in. Cornerite securely tied along edge.
- 6. Galvanized Corner Beads, Picture Mouldings, and Base Screeds, wherever indicated, shall be wired to the partition after lath is applied.

Plastering

Follow specifications for plastering over Metal Lath as outlined in the Gold Bond Handbook—1940 edition.

GOLD BOND METAL LATH PRODUCTS

Gold Bond Cold Rolled Channels



Are used generally for suspended ceiling work and 2 in. solid partitions. They are formed cold from the best quality strip steel. Gold Bond Channels are absolutely straight and are especially adaptable to form work because of their bending qualities and rigidity.

Туре	Stock lengths shown in feet	Packed Pcs. per bdle.	Weight, Lbs. 1000 lin. ft.
Pencil	12, 14	20	113
Box	16, 18, 20	20	276
3/4 in.	16, 18, 20	20	276
1 in.	16, 18, 20	20	332
1½ in.	16, 18, 20	10	442
2 in.	16, 18, 20	10	553

Furnished unpainted unless otherwise specified. Pencil Channel always furnished in painted stock.

Gold Bond Metal Arches

Are made from galvannealed sheet steel. A perfect arch for approximately half the cost of curved wood forms to which must be fitted corner bead and metal lath. They are easy to erect and are ideal for residences and apartment houses. Gold Bond Metal Arches are made in true circle, gothic and elliptic designs. They are standard for 2x4 studs or bucks. The studs or bucks are to be spaced 1½ in. wider than the desired finished opening.

This allowance is for the thickness of the lath and plaster ground. Can be jointed with standard corner bead by using the shank of a No. 7 box nail.

Style of Arch	Spacing of Studs or Bucks	Width of Finished Opening
No. 11 No. 22 No. 33 No. 36 No. 44 No. 55 No. 66	21½" 33" 33" 51" 63" 72"	20" 31½" 31½" 37½" 49½" 61½" 70½"



Gold Bond Metal Arches are easily fitted over the lath. Saves time and insures perfectly formed arches

Gold Bond Arch Corner Bead

SPERENCO C

Won't Kink or Break

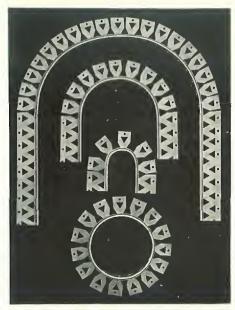


Easily Prepared for Bending

A new product, Gold Bond Arch Corner Bead has met with instant acceptance among builders and dealers. Serves a double purpose—as a corner bead for vertical or horizontal corners—as an arch bead for curved openings. Arches can be quickly made on the job at a decided saving.

Ordinary corner beads invariably break or kink at the nose when bent. Not so with Gold Bond Arch Corner Bead because its unique design permits utmost flexibility. No mechanical bender is necessary. Simply snip one flange as illustrated at the left and bend to the desired radius. Fits over any style of lath. The flanges have twice as many perforations as most corner beads which means more plaster "keys" and greater bonding strength.

Supplied in lengths of 6, 7, 8, 9, 10 and 12 ft. Made in 26 gauge. 24 gauge on special order. Packed 10 pieces per bundle. Weighs 200 lbs. per 1000 lineal ft.



For Ornamental Plaster Work

GOLD BOND "CLIP-ON" SYSTEMS For Suspended Ceilings and 2-inch Solid Partitions

Two Patented Systems Which Combine the Use of Gold Bond Gypsum Lath and Metal Installation Clips . . . Quicker, Stronger, Cuts "Dead-Load" Weight One-Third . . . One Hour Fire Rating

SUSPENDED CEILINGS

THE important problem of keeping cracks out of suspended plaster ceilings has been approached in the most scientific and practical way in the development of the Gold Bond "Clip-On" System.

This method comprises the use of fireproof Gold Bond Gypsum Lath, galvanized copper bearing clips and standard coated channels. The channel grillage is so constructed as to permit expansion or contraction without transferring any of the resulting movement to the gypsum lath, there-by eliminating the most common cause for plaster cracks.

Stronger and Lighter

In accomplishing this freedom for expansion or contraction there is no sacrifice of strength or other desirable qualities of good ceiling con-struction. The Gold Bond "Clip-

On" System builds the strongest ceiling of any known method. This outstanding strength is provided despite the fact that the weight of the ceiling is 20 to 30% less than usual. The "Clip-On" System weighs 45 to 50 pounds per square yard in contrast to the normal weight of 70 to 80 pounds.



The panels of Fireproof Gold Bond Gypsum Lath slide into the metal clips and the job moves along like clock-work. Lathers get the "hang" of it quickly.

The sturdy panels of Gold Bond System Lath, 16 x 48 inches, are easily clipped into place and provide a smooth, even base for plaster. Actual figures show that the plasterer will apply greater yardage per day than over any other type of plaster Z

3

Complete Gold Bond "Clip-On" Ceiling

The Gold Bond "Clip-On" System is designed and sold for use with Gold Bond Gypsum Lath, plastered with Gold Bond Gypsum Plaster and Gighda with Gold Bond Gypsum Plaster and Fighta with Gold Bond Gypsum Plaster and Gypsum State of the State finished with Gold Bond Finish Lime. In specifying the system with Gold Bond Products throughout, the architect or engineer is protected by one undivided manufacturing responsibility.

Descriptive Book on Request

National Gypsum Company will gladly send without charge, an illus-trated book "Gold Bond 'Clip-On' System for Suspended Ceilings."

One-Hour Fire Rating

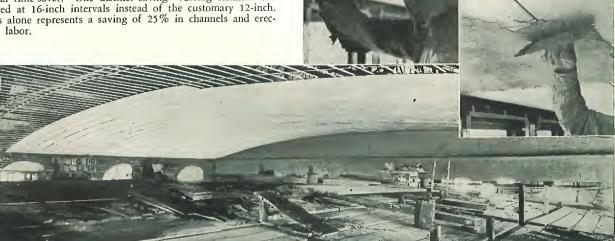
The Gold Bond "Clip-On" Suspended Ceiling when plastered according to specifications, fully meets the standard onehour fire test imposed by the fire underwriters.

Speedy Installation

Contractors find the "Clip-On" System easy to master and a real time-saver. One distinct saving—furring channels are spaced at 16-inch intervals instead of the customary 12-inch. This alone represents a saving of 25% in channels and erection labor.

(left) Toggles are used on ceiling areas over 12 ft.

(below) Plasterers can work faster over this smooth base.



"CLIP-ON" SYSTEMS (Continued)

2 INCH SOLID PARTITIONS

THE GOLD BOND "Clip-On" 2-Inch Solid Partition provides a thin but very sturdy construction adaptable to hotels, apartment houses, office buildings, and especially to low-cost housing developments. Saves a full 2½ inches in width or length of a room as compared with conventional wood stud partitions, plastered on both sides. It also speeds up completion of the job at a decided saving in labor and material.

This system comprises the use of Gold Bond Perforated Gypsum Lath, galvanized copper bearings clips, and standard coated channels. Erection is rapid. Channels are spaced 24 inches on centers (or 16 inches); the gypsum lath panels 16 x 48 inches dropped into place and one sharp blow anchors the lath clips to channels. The job is then ready for plastering. As shown by the following chart, a saving of two days' time per room is effected.

Day	2-In. "Clip-On" System	OTHER 2-IN. SYSTEMS
First	Lather erects channel studding and "clips-on" Gold Bond Gypsum Lath.	Lather erects channel studding and plaster base.
Second	Plasterer "backs up" channel stud- ding area with scratch coat and also applies brown coat to gypsum lath side, and double backs with brown coat on channel side.	Scratch coat applied to metal plaster base, (This operation is en- tirely eliminated with the "Clip-On" Sys- tem.)
Third	Finish coats, both sides.	Backs up channel side with fill coat.
Fourth		Brown coat on both sides,
Fifth		Finish coat on both sides,

One-Hour Fire Rating

The Gold Bond "Clip-On" Partition fully meets the requirements for a one-hour fire test rating. Not only is it a highly incombustible wall, but it provides real protection against spread of fire. As there is no wood studding, high temperatures cannot start combustion within the wall itself.

4





Plasterer (at left) filling in the channel side with the scratch coat. Lather (at right) builds up the partition quickly.

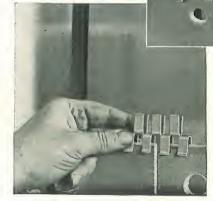
Other Advantages

The "Clip-On" System builds a 2 inch solid partition of extreme strength, yet remarkably light for a plaster partition. Enjoys the highest comparable rating on impact tests as conducted by the Bureau of Standards. Resiliency provided by metal clips practically eliminates danger of plaster cracks occurring from vibrations or structural strain.

Descriptive Book Available

Upon request National Gypsum Company will gladly send a large illustrated book . . . "Gold Bond 'Clip-On' System for 2 Inch Solid Partition Wall."

(left) Applying the "brown" coat to the face side. Plastering moves along fast over the Gold Bond Perforated Gypsum Lath.



(above) One sharp blow clinches clip No. 101 to channel,

(left) The edges of the lath panels don't have to "hit" on channels.

GOLD BOND GYPSUM PARTITION TILE

True, Uniform, Machine Moulded Tiles That Are Fireproof, Insulative, Lightweight and Easily Handled

GOLD BOND GYPSUM PARTITION TILE is a lightweight, sturdy product, used for the finest type of fireproof partitions.

Supplied in all standard thicknesses that permit economical erection with a minimum of waste. It is recognized as the standard material for interior, non-bearing partitions, column covering, and wall furring. Is particularly adapted to cutting or sawing and chasing for conduits, switch boxes and pipe lines.

Gold Bond Partition Tile is made under the most modern methods with the latest type of machinery, in standard uniform sizes 12 in. x 30 in., thickness 2 in. solid and 3, 4, 5 and 6 in. hollow. 1½ in. and 2 in. hollow furring tile should be made on the job by ripping 3 in. and 4 in. hollow tile through the center, as this method effects a distinct saving.



One of the Partition Tile Machines at the Fort Dodge Plant

TABLE OF SIZES AND WEIGHTS

Size of Gold Bond Gypsum Partition Tile	For Ceiling Heights Up to	Weight of Tile Lbs. per sq. ft.	Weight of Mortar Lbs. per sq. ft.	Weight of Plaster (one side) Lbs. per sq. ft.	Total Weight Tile, Mortar and Plaster (two sides) Lbs. per sq. ft.
2" Solid 12" x 30" 3" Hollow 12" x 30" 4" Hollow 12" x 30" 5" Hollow 12" x 30" 6" Hollow 12" x 30"	10 ft.	10.0	1.00	3	17.00
	13 ft.	10.0	1.20	3	17.20
	17 ft.	14.0	1.63	3	21.63
	20 ft.	17.2	2.04	3	25.24
	30 ft.	20.0	2.45	3	28.45

SHORT SPAN REINFORCED GYPSUM ROOF TILE

Short span gypsum roof tile construction is by far the most flexible of any precast system. Gold Bond Roof Tile is accurately machine moulded and reinforced with electrical welded galvanized steel fabric. May be used on any type of factory or industrial building, power plants, schools and is particularly adapted to special pitched roofs that are cut up with hips, valleys or dormers.

Gold Bond Short Span Roof Tile requires sub-purlin supports. These are usually standard T sections but lightweight I-beams or channel sections may be used with economy up to 12 ft. They are made 3 in. solid, 12 in. wide and 30 in. long, extra dense and reinforced with electrically welded galvanized steel fabric placed near the bottom. The most economical span for standard 3 and 3½ in. T's is from 6 ft. 7 in. to 7 ft. 4 in.

The tile is laid directly on steel supports without mortar and with the sides tight together, having full bearing on the subpurlins. The grouting grooves are then filled with gypsum mortar and the roof is then ready for covering.

On sloping roofs, if channels are used for main purlins, they should open upwards in order to permit proper clipping of the sub-purlins.

Tie-rods are recommended for use on all roofs, using channel purlins regardless of slope or pitch.

Curb tile is used under sash, skylight frames, etc., and are made 3 in. x 15 in. x 30 in. The steel work should be laid out to accommodate a full or one-half 30-in. dimension.

Gold Bond Short Span Reinforced Roof Tile weighs approximately 17 lbs. per square foot. Is made of extra dense gypsum and because of the method of reinforcing is easily cut to fit job conditions.

The 3-in. solid roof tile has a high heat insulation value according to tests by recognized authorities of .41 B.t.u.'s per square foot per degree difference in temperature per hour. This excellent insulating property prevents the usual condensation which occurs on the under side of non-insulative constructions.

MONOLITHIC GYPSUM CONSTRUCTION FOR POURED-IN-PLACE FLOORS AND ROOFS

This Type of Construction, in Use for Almost a Half Century, Has Been Further Improved by a Patented Method Which Makes This System Preferable from Every Standpoint . . . Quickly Constructed, Permanent, Fireproof, Inexpensive



Poured-in-Place Gypsum Roof Construction Which Actually Becomes an Integral Part of the Main Steel Construction Withstands vibrations and will resist storms and cyclones sufficient in force to destroy roofs of conventional design

SIX OUTSTANDING ADVANTAGES

- Light Weight—Slab weighs only one-third as much as concrete, thus reducing the dead load and decreasing the cost of supports and foundations.
- Rapid Construction—Slab may be used within an hour, and the roof covering can be placed if desired the following day.
- High Insulation Value—Four times the insulation value of concrete. Reduces fuel consumption and heating equipment requirements. A building that is warmer in winter and cooler in summer.
- 4. Fireproof-Gypsum construction as fireproofing for steel has
- successfully passed numerous fire tests, and is generally recognized as being equal to other material as fireproofing for steel work, with a minimum of dead load.

- Vibration Crack Resistant—Owing to the toughness and elasticity of the gypsum composition there is a noticeable absence of vibration cracks on all installations of this material.
- 6. Low Maintenance Cost—Repairing and maintenance cost is low. Slab is easily cut where changes in construction are necessary. Nails can be driven in slab to secure slate, tile, etc.

Monolithic Gypsum construction for floors and roofs (gypsum fibre concrete with steel reinforcing) has long been favored for its permanence and economy.

The natural advantages of this construction have been further enhanced by a patented method which permits of more rapid installation and incidentally may be designed for any required loading condition. The roof construction design, absolutely perfect from an engineering standpoint, permits the roof to become an integral part of the main steel construction—the undersurface providing an attractive ceiling that requires no decoration.

Speed of erection, permanence, effective insulation and fire-proofing, plus low initial cost combine to make this system outstanding. For further details, please write NATIONAL GYPSUM COMPANY, Buffalo, N. Y.



SECTION TWO

GOLD BOND GYPSUM PLASTERS LIME AND PAINT

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GYPSUM PLASTERS

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CASEIN PASTE PAINT
DEEP COLORS
PIGMENTED PRIMER
LIME PROOF MORTAR COLORS
SPACKLING COMPOUND

Page 46 CALCIMINE

Pages 47-53
SPECIFICATIONS . . . LATH and PLASTER

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MACOUSTIC ACOUSTICAL PLASTER

At Left:

Mechanically controlled mixing and bagging equipment assure accurate blending and weighing of plaster without possibility of human error.

GOLD BOND—A COMPLETE PLASTER SERVICE

How Gold Bond Supervises the Quality of Its Plaster Every Step of the Way
From Mine to Finished Wall

GOLD Bond Plaster mines and quarries are located in the richest gypsum sections of the country, the vast deposits insuring approximately a hundred years' supply of exceptionally pure rock.

Purity Assured

Here in these mines and quarries daily tests are made to assure the constant purity of the rock—actual tests proving that the purity of the gypsum has a decided effect upon the strength and hardness of the finished wall. High purity also increases the coverage and smooth working qualities of the finished plaster.

Gold Bond spares no trouble or expense to obtain the purest gypsum rock, and then follows it by laboratory tests through every process of manufacture to the finished job.

Tested for Individual Job

For this purpose—suiting the plaster to the individual job—the Gold Bond laboratories are constantly testing specimens of sand from every part of the country where Gold Bond plaster is used. Samples are continually being secured to meet changes in local conditions.

Before shipping, every batch of plaster is tested to meet the requirements of the particular sand of the vicinity into which the plaster is to be shipped. A somewhat costly process from the viewpoint of the manufacturer, but well worth the expense as it assures our customers of getting plaster that is particularly suited to their respective territories regardless of any unusual local conditions. New processes (patent applied for) insures uniformity of performance under all normal job variations and weather conditions.

Introduction of the new Gold Bond Microplastic Plaster in 1935 proves one of the greatest improvements in plaster history

Gold Bond Plasters have long been accepted as "standard" among the leading contractors of the country. Then in 1935, this enviable position was greatly enhanced by the introduction of a brand new plaster—Gold Bond Microplastic Plaster, produced after years of intensive research work.

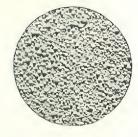
This improved method of processing has resulted in a product that is practically foolproof as far as application is concerned. Plasticity or workability has been increased 100% with far greater coverage. The new Gold Bond Microplastic Plaster met with instant approval and experts considered this to be the greatest forward step in the development of plaster in many years.

What the Micron-Sizing Process Actually Accomplishes



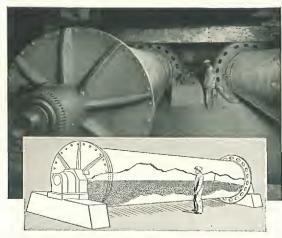
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Before



After

Note the contrast between these microphotos. At the left the plaster is coarse and flinty, while at the right the plaster after the Micron-Sizing Process has been broken down into millions of tiny particles and then rolled into soft, felted balls.



New Equipment and New Processes Enable Gold Bond to Offer a New High Quality in Plaster

Two of the huge revolving mills which regrind the gypsum particles into micron sizes and roll them into soft felted balls.

Bottom: An X-ray drawing of interior of mill showing the 100,000 manganese steel balls which do the pulverizing.

Scientific Principle of Micron Sizes and Their Effect on Plasticity

It is a well established scientific principle that in the setting of plaster a gelatinous plastic film is produced on the surface of the particles of calcined gypsum. Gold Bond, as one step in manufacture, regrinds the particles to micron sizes (1/25,000 inch). The enormous increase in area resulting greatly multiplies the bulky gelatinous smooth working qualities.

GENERAL DATA

Characteristics and Application of Gold Bond Gypsum Plasters

The high grade gypsum rock used in the manufacture of all Gold Bond Plasters is hydrated calcium sulphate, containing approximately 20% of chemically combined water. In the calcination process most of this water is driven off, producing "plaster of Paris" which is the base of all gypsum plasters. On remixing with water on the job, the material takes back the water driven off in calcination and crystallizes or sets to the original gypsum rock.

In making Gold Bond Gypsum Plasters, small amounts of other materials are added to the basic "plaster of Paris" to control the time of set, working qualities, type of use, and particular market conditions of territory to which it is shipped.

May Be Used on All Plastering Bases

One of the many advantages of gypsum plaster is that it may be used on all types of plastering bases in addition to masonry surfaces. It may be used on gypsum, wood or metal lath; clay, concrete or gypsum tile or blocks; brick, concrete or other standard masonry plastering surface.

Adhesion Qualities

The particularly strong adhesive quality of gypsum plaster has been practically demonstrated in tests at the U. S. Bureau of Standards. It was conclusively shown that it does not depend entirely on mechanical keys but bonds on actual suction or adhesive qualities.

Dries Quickly

The advantages of the quick set and rapid drying qualities of gypsum plaster are very important in the completion of a building as well as reducing overhead. The usual time for a hard set is from 2 to 6 hours and complete drying in about 36 hours depending on weather and the season of the year. After drying there is no further sweating or dampness.

Durability

Gypsum plaster forms a hard, tough base for the application of finish coats or decoration. The tough base coats help the plaster wall to withstand rough usage which it may receive during the life of the building.

Low Coefficient of Expansion

After being applied, gypsum plaster remains inert and does not expand or contract even when subjected to fire. As it is made of gypsum it is absolutely incombustible.

Packaging

Shipped usually in 100 lb. paper bags; and some specialty products in 250 lb. barrels.



At Right: Gypsum Quarry at National City, Mich. At Left:

Gypsum Mine at

Clarence Center, N. Y.

33.

GLOSSARY OF TERMS AND INFORMATION REGARDING PLASTERS AND THEIR

In view of the use of numerous local or descriptive names for the same type of plaster and widely varying market practices, it is felt that the following classification of plasters as to names and uses will be of considerable value:

BASE COAT PLASTERS

Cement Plasters

These plasters constitute the bulk of tonnage of all types of gypsum plasters used. The term relates to all Neat (the term Neat designating a plaster containing no sand or other aggregate added at mill) plasters either with or without hair or sisal fiber. (Wood Fiber Plaster is never classified as a cement plaster.)

Cement plaster is also called by the following names in many markets:

- (a) Hardwall
- (d) Compound
- (b) Patent Plaster
- (e) Paristone
- (c) Neat
- (f) Base Coat Plaster

Fibered and Unfibered Cement Plaster

Hair Fibered Plaster—

Hair Fibered Plaster may contain either hair or sisal fiber. Sisal fiber is recommended as being more satisfactory than hair in plaster.

Unfibered Plaster-

This designates only cement plaster containing no fiber.

Uses for Cement Plaster-

This material is generally used for plaster work where good plaster sand is easily available and it is economically advisable to mix sand on the job rather than use a mill-mixed material. Cement Plaster is formulated for use with sand in amounts covered in directions and should never be used Neat-i.e., without addition of sand.

Sanded Plaster

This material is the same as Cement Plaster, except that a properly graded sand has been added at the mill in the proper amount for best plastering results. It has been called by many names listed under Cement Plaster except with the term Sanded used in addition.

Uses for Sanded Plaster-

This material is used largely where good plastering sand is not easily available, where absolute exactness of proportioning of amount of sand is required, where facilities for mixing are limited, or job is not large enough to justify trouble of mixing sand on the job. Sanded plaster is used solely with addition of water on the job.

Wood Fiber Plaster

This type of plaster contains a finely shredded wood fiber and is made primarily for use with addition of water only on the job. In some cases, however, a small amount of sand (never over one part by weight) is added on the job. In some markets this material is known as Pulp plaster.

Uses for Wood Fiber Plaster—

This material is used to a large extent for patch jobs, for work where an extremely hard wall is wanted, where base plaster is to be trowel finished, where sand is not easily available, etc.

Sanded Wood Fiber Plaster

This type plaster is on same general order as Wood Fiber Plaster except a small amount of specially graded fine sand is added. Its uses are the same as with Wood Fiber Plaster and it is used in certain markets where trade prefers a sanded wood

Concrete Bonding Plaster

This is a specially formulated wood fiber plaster to provide maximum bond to interior concrete surfaces. Ordinary gypsum or lime plaster does not bond properly to concrete surfaces. Water only is added in mixing on the job.

Bond Plaster

This material is the same as Concrete Bonding Plaster.

FINISH PLASTERS

Gauging Plaster

This is a specially ground calcined gypsum which may be either pure white or grey in color and quick or slow in set. Other names used to designate this material are as follows:

- (a) Plaster of Paris
- (b) Calcine
- (c) Finish Plaster
- (d) White Plaster (For pure white material only)

Uses of Gauging Plaster-

This material is always used in connection with lime putty finish and is the essential ingredient which provides an initial set and prevents the slow setting lime from shrinking, checking and peeling before the set of lime itself takes place. The failure to use the proper amount of Gauging Plaster is the cause of most failures on lime putty finish jobs.

The type of Gauging used depends on trade practices in each locality. The following types of material are used:

- (1) White Gauging-Quick Set
- (2) White Gauging-Slow Set
- (3) Grey Gauging-Quick Set
- (4) Grey Gauging-Slow Set

Moulding Plaster

This is made from selected rock and specially prepared for requirements of its use. This is also sometimes called Plaster of Paris. It is used for plaster moulds, ornamental plaster work of all kinds and can be used as substitute for quick set Gauging Plaster. It is generally made as a pure white plaster but in a few localities Grey Moulding is used for special purposes.

Prepared Trowel Finishes

These plasters are gypsum finish plasters manufactured to avoid the problems involved in use of ordinary lime putty finish. They contain no lime but various ingredients are added to produce exceptionally easy working and spreading qualities. Water only is added on the job. They are also known as

- (a) Smooth Trowel Finishes
- (b) Gypsum Trowel Finishes

Uses of Prepared Trowel Finishes-

These finishes are available as a substitute for lime putty finish whenever desired. They have replaced lime putty finish in some markets. They have the advantage of perfect bond to base, quick

setting and freedom from danger of lime burn in decoration. These finishes can be safely decorated in any manner as soon as dry.

They are available in both grey and white.

Sand Float Finishes

These are also prepared gypsum finish with addition of fine sand. For use over gypsum base coat. They are used in markets where the semi-rough surface of a sand float finish is desired. As name implies these materials are "floated," not trowel finished. They are furnished in both grey and white.

Keene's Cement

This is an exceptionally dense gypsum finish, fundamentally different from all other types of gypsum plasters. Made at Medicine Lodge, Kansas, by Best Brothers, the original and largest manufacturer of Keene's Cement in the country and now operated as a division of National Gypsum Company.

Keene's Cement is made in several different styles with various setting times and with the grind ranging from coarse to super-fine as covered in detail on page 40.

Uses of Keene's Cement-

Keene's Cement is used wherever extremely dense walls are required, such as imitation tile finishes in bathrooms and kitchens or any place where the walls will be subjected to unusual abuse. Also used as a finish coat instead of lime putty, for castings and running moulds, backing up artificial marble, also for the facing of artificial marble and for numerous ornamental plastering effects.

NATIONAL GYPSUM CO. GYPSUM PLASTERS

	API	PROXIMATE Y	ARD COVERA	GE PER TON	ON VARIOUS	PLASTERING	BASES	
Type of plaster	Gypsum lath	Gypsum insulating lath	Painted metal lath	Wood lath	Gypsum tile	Brick and clay tile	Concrete surfaces	Bags type weight, lbs.
Neat*	225-240 Sanded 1-2	225-240 Sanded 1-2	105-135 Sanded 1-2	180-210 Sanded 1-2	235-255 Sanded 1-3	165-200 Sanded 1-3	Use Bond Plaster	Paper 100 lbs.
Sand d	75-80	75-80	35-45	60-70	65-70	45-55	Use Bond Plaster	Paper 100 lbs.
Wood Fibered	115-120 Water only no sand	115-120 Water only no sand	56-65 Water only no sand	90-100 Water only no sand			Use Bond Plaster	Paper 100 lbs.
Bond			90 to 120	sq. yds., depend	ing on smoothne	ess of surface of	concrete	Paper 100 lbs.
Gauging Plaster			1600 sq. yds. with 2 tons of hydrated lime					Paper 100 lbs.
Prepared Sand Float Finish				2	250-275 sq. yds.			Paper 100 lbs.
Prepared Trowel Finish				:	300-400 sq. yds.			Paper 100 lbs.
Keene's Cement					400-500 sq. yds.			Paper 100 lbs.

*Sanded 1-2 equals 1 part of plaster 2 parts sand by weight. Sanded 1-3 equals 1 part plaster 3 parts sand by weight.

PLASTER PROBLEMS AND THEIR SOLUTION

Gypsum plasters are a highly sensitive chemical product and therefore subject to changes resulting from use under adverse conditions. A knowledge of the effect of these conditions on gypsum plasters as covered by the following table will insure the satisfactory correction of practically all plaster problems which arise:

apart. Stagger. Wet lath before plastering.

(3) Two coat work.

SLOW SET: If plaster fails to set in 4 hours with all proper precautions.

REMEDIES: (1) Add amount Gold Bond Accelerator (usually handful to the bag is sufficient) necessary to give desired set. Sprinkle accelerator over dry plaster before mixing.

or (2) Add handful screened dry set plaster droppings same manner as accelerator.

or (3) Add alum or zinc sulphate in proportions two ounces per gallon water. (Portland cement is also a good accelerator.)

QUICK SET: If plaster sets in box or before it can be darbied.

(1) Check to see if mixing box, tools and sand are clean and clean water used.

(2) Use retarder or ground glue in amount needed for desired set.

SHORT WORKING: If mortar works hard, does not carry sand, drops easily from wall.

REMEDIES: (1) See if material is stored in dry place.

down.

sanded.

One coat work.

(2) Add fresh plaster bag to bag.

(3) Decrease amount sand and water.

IF PLASTERED WALL IS:	THE TROUBLE IS:	REMEDY:	TO PREVENT TROUBLE IN FUTURE:
Soft, white, chalky particularly over openings. Hot weather condition.	"Dry Out." Plaster dried before setting.		Screen openings. Wet lath and floors. Avoid thin coats. If plaster slow set use accelerator.

er slow set use accelerator. After plaster is set open "Sweat Out," Damp. Soft. Winter Plaster Allow ventilation to hasten drying after plaster doors and windows. holds water and "rots." condition. is set. Supply artificial heat in cold weather. Supply heat.

PLASTER TROUBLES AFTER APPLICATION

Soft, resembling sweat Throw open building. Keep walls from freezing until plaster is dry Walls are frozen. out-rooms have been at Let walls freeze dry. or at least 24 hours. freezing temperature. (1) Too much sand. Soft, not due slow set or (1) Measure sand accurately.

hot weather or retemper-None. Do not use over 3 parts by weight. (2) Too fine sand. (2) Use other sand. ing plaster. Wood lath. Cracks or Due swelling poor grade bulges horizontal with of lath or improperly Use No. 1 lath, white pine, cypress or spruce spaced or failure to wet lath. Remove and replaster. free from bark, sap, or knots. Space 1/4" to 3/8'

Straight vertical cracks. Failure stagger joints. Gypsum lath. Cracks Too thin coat. Use proper grounds. Apply second coat. around joints.

Too light lath, too open Metal lath. Sags, cracks, spaces, plaster not dou-Correct conditions mentioned. Reapply. does not adhere. ble fibered. Plaster over

(1) Wet tile before plastering. Failure wet before plas-Brick or tile. Float crack or apply more Small (2) Use 3 parts sand. tering. Too little sand. cracks. plaster.

Remove loose plaster. Use of improper plaster. Surface must be rough, clean. Use concrete Concrete. Poor bond. Condition wall. Apply Unprepared surface. bonding coat. bond plaster.

GOLD BOND BASE PLASTERS

With Regard to A. S. T. M. Specifications

National Gypsum Company guarantees any Gold Bond Gypsum Plaster product to have about double the strength requirements and to exceed by a wide margin the purity required for

any special plaster product in the A. S. T. M. Specifications and also every other detail of these specifications. This also applies to Federal specifications.

GOLD BOND CEMENT PLASTER

Neat Plaster for Base Coats—Fibered or Unfibered

Gold Bond Cement Plaster is "neat," not sanded, the sand being added at the job. Each shipment is prepared especially for the locality to which it is shipped and for the sand used in that locality. Fibered with hair or sisal fiber as ordered.

When mixed with sand it spreads well with a uniform working quality and with satisfactory results on the finished wall. On account of the purity of the gypsum it assures the maximum in sand carrying capacity, bulk and workability.

Note: Cement plaster should never be used neat-i. e., without adding sand.

Mixing and Proportions of Sand for Various Bases

After thoroughly mixing with sand, hoe plaster into water and bring to a uniform mix of proper consistency.

Scratch Coat on Gypsum, Wood and Metal Lath

Mix 1 part plaster with 2 parts by weight of dry sand.

On Brick and Gypsum or Clay Tile

Use 1 part plaster to 3 parts by weight of sand.

Brown Coat (Second) for All Plaster Bases

Mix 1 part of plaster to 3 parts of sand.

Application on Various Bases

On Gypsum Lath—Do not wet lath. Apply in 2 coats, scratching well in to fill joints between the lathing units. Brown coat to be darbied lightly and water used sparingly.

On Wood Lath—Soak lath 24 hours before and wet again an hour or two before plastering. Apply in 2 coats using sufficient pressure on scratch coat to obtain good key. Brown coat to be darbied lightly and water used sparingly.

On Metal Lath—Apply in 2 coats. Scratch coat to lightly cover lath and fill mesh. Scratch first coat and allow to set. Then apply brown coat, darby lightly and use water sparingly.

On Brick and Gypsum or Clay Tile—Soak brick or clay tile walls and sprinkle gypsum tile lightly before application of plaster. Apply in 2 coats. Darby brown coat lightly and use water sparingly.

Approximate Covering Capacity and Sanding

Plastering	Gypsum	Wood	Metal	Brick and	Gypsum
base	lath	lath	lath	clay tile	tile
Sq. yds. per ton	225-240 1 plaster 2 sand	180-210 1 plaster 2 sand	105-135 1 plaster 2 sand	165-200 1 plaster 3 of sand	235-255 1 plaster 3 of sand

Full 1/2 in. grounds should be used for best plaster work.

GOLD BOND SANDED PLASTER

For Base Coats Where Prepared Sanded Plaster Is Desired

Gold Bond Sanded Plaster is the same as cement plaster but is accurately factory mixed and sanded with especially selected and graded sharp sand. It requires only the addition of water and mixing to be ready for use. It is useful for localities where good local sand is difficult to obtain or where accurately mixed material is wanted

Gold Bond FIBERED PLASTER BOLLENET

Gold Bond Sanded Plaster is also desirable for use during the winter as it eliminates the need for drying sand which is wet and frozen or for trying to secure unfrozen sand.

Gold Bond Sanded Plaster is also useful for remodeling and repair work as it may be mixed inside the building.

At Left: Gold Bond Cement Plaster Bag

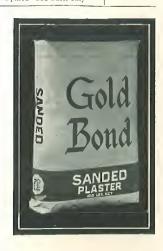
Approximate Covering Capacity

Gypsum lath	Wood lath	Metal lath	Brick and clay tile	Gypsum tile
75-80	60-70	35-40	45-55	65-70
		75-80 60-70	75-80 60-70 35-40	

Application on Various Bases—Gold Bond Sanded Plasters are applied to the various plastering bases in the same manner as for Cement Plaster (see description above).

Mixing—Add nothing but water, hoeing plaster into water and mixing thoroughly. First mix thin, then add dry material to bring to proper consistency.

At Right: Gold Bond Sanded Plaster Bag



GOLD BOND BASE PLASTERS (Continued)

GOLD BOND WOOD FIBERED PLASTER

Used for Base Coats Except on Brick and Gypsum and Clay Tile

Unsanded or "Neat" Wood Fibered Plaster is a gypsum plaster containing finely shredded wood fiber and requires only the addition of water to be ready for use. It does not require sand but in some localities 1 part, by weight, of sand is added.

The wood fibered plaster when used unsanded avoids dangers of over-sanding and works and spreads freely and easily. The plaster is about two-thirds lighter in weight than sanded plaster. The wood fiber acts as a reinforcing and produces a dense, tough, strong and durable base, especially for troweling. It is superior in fire resisting and sound deadening qualities to sanded plasters and will stand up where strains and vibrations are encountered. It saws like wood. It is especially adapted for winter work and alterations as it is easily handled.

Sanded Wood Fibered Plaster—Same as unsanded but is shipped factory mixed with proper amount finely graded sand.

Mixing for Application on Various Bases

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Hoe plaster into water and allow to soak for 10 to 20 minutes, then mix to the proper consistency.

Scratch Coat—Use "Neat" or Sanded for wood, gypsum lath and metal lath.

Brown Coat—Use "Neat" or Sanded for wood and gypsum lath and Sanded for metal lath.

Note: Do not use either on Brick and Gypsum or Clay Tile.

Application on Various Bases

On Gypsum Lath—Do not wet lath. Apply in coats scratching well to fill joints between the lathing units and scratch surface. Allow first coat to set and dry; then apply brown coat and broom surface before it sets.

On Wood Lath—Soak lath. Apply in coats, applying scratch coat with sufficient pressure to obtain proper key and scratch surface. Apply brown coat and broom surface before it sets.

On Metal Lath—Apply in two coats, applying scratch coat, of stiffer consistency, to cover lath and fill mesh. Apply brown coat and broom surface before it sets.

On Brick and Gypsum or Clay Tile-

Note: Wood Fibered Plaster is not recommended for use on these bases.

Approximate Covering Capacity

Plastering	Gypsum	Wood	Metal	Brick and	Gypsum
base	lath	lath	lath	clay tile	tile
Sq. yds. per ton	115-120 Unsanded add water only	90-100 Unsanded add water only	55-65 Unsanded add water only	Not recom: these	

GOLD BOND CONCRETE BONDING PLASTER

For Base Coats on Interior Concrete Surfaces

This plaster is made especially to bond to concrete surfaces, on which ordinary gypsum or lime plasters will not adhere properly. It is used for scratch and brown coats. Only water should be added on the job. Do not use with sand.

All surfaces of concrete must be dry, absolutely clean, free from oil and efflorescence and should be roughened if the surface is troweled smooth.



The plaster should be applied in two thin coats just thick enough to make a smooth wall and not over ½ in. total thickness. Any plaster finish may be used over the bonding plaster. The finished surface should not be decorated for a year in order to allow time for any moisture in concrete to work out.

At Left: Gold Bond Wood Fibered Plaster Bag

Mixing and Application

Mixing—Add nothing but water and hoe plaster into the water, allowing to soak for 10 to 20 minutes, then mix thoroughly to a smooth creamy consistency.

Application—Apply in 2 coats—First coat shall be scratched on as thin as possible, scratched and allowed to dry. Apply second coat just thick enough to level up inequalities, with total thick-

ness not over V_8 in. for both coats. Scratch the surface of bond plaster thoroughly to provide mechanical key for finish.

Approximate Covering Capacity

Approximately from 90 to 120 sq. yards per ton, depending on roughness of concrete and thickness applied.

At Right: Gold Bond Concrete Bonding Plaster Bag



GOLD BOND FINISHING PLASTERS

With Regard to A. S. T. M. Specifications

National Gypsum Company guarantees any Gold Bond Gypsum Plaster product to have about double the strength requirements and to exceed by a wide margin the purity required for

any special plaster product in the A.S.T.M. Specifications, also every other detail of specifications. This also applies to Government specifications.

GOLD BOND GAUGING PLASTER

For Gauging Gold Bond Lime Putty Finish

Gauging plaster is a specially selected, ground, calcined gypsum used with lime putty plasters to quicken the set of the lime putty and prevent checking of lime finish. Is uniformly ground to a fineness to insure easy mixing and working qualities. Also known as Plaster of Paris. Supplied in following types:

Quick Set or Slow Set

Gold Bond Super White (White). Gold Bond Sapphire (Grey).

Directions for Mixing

Use as directed under Gold Bond Finishing Lime.

Covering Capacity

Under normal conditions one ton of Gauging Plaster to two tons of hydrated lime by weight will cover approximately 1600 sq. yds.

GOLD BOND PREPARED TROWEL AND SAND FLOAT FINISHES

For White or Sand Float Gypsum Finishes Over Gypsum Base Coats

These prepared gypsum plasters are for use as finish over gypsum base coats in place of lime putty finish. They make a perfect bond with the gypsum plaster base coats. They have exceptionally easy working and spreading qualities, set quickly and walls may be decorated in any manner as soon as they become dry. There is no danger of lime burns in decorations.

Sand Float Finishes contain clean sharp silica sand which has been screened, graded and dried. This sanded plaster is especially recommended for use in winter when it is difficult to secure the proper sand.

Mixing and Application

Mixing—Hoe plaster into water (adding 2 parts of plaster to 1 part of water by volume) and allow to soak for 10 minutes.

Mix thoroughly to produce a smooth creamy consistency and add water until very thin.

Trowel Finish—Base coat must be hard and at least half dry before finish is applied. If suction is too great sprinkle base with water. Apply in three coats, the first coat very thin, well scratched into the surface. Allow to draw for a few minutes then lay on second coat and level off. Apply third coat very thin, filling in all imperfections and allow to draw for a few minutes. Then trowel to smooth finish, applying water sparingly with brush and complete troweling before plaster sets.

Sand Float Finish—Gypsum base coat must be hard and about half dry before finish is applied. Trowel on and finish with a float to true and even surface, using water sparingly from a damp brush and complete before finish sets.

GOLD BOND MOULDING PLASTER

Gold Bond Moulding Plaster (Plaster of Paris) is made for use in ornamental plaster work. It is made from selected gypsum rock of greatest purity and whiteness and undergoes special preparations for the purposes for which it is used. The purity of the gypsum deposits of the company allows the production of moulding plaster of the very finest quality. It makes an especially smooth working plaster of uniform set. It is ground finer than other gypsum plasters and permits a finer surface and greater freedom from pin holes.

On account of its hardness and great strength after setting it

is used for plaster moulds and ornamental work of all kinds. The plaster sets with little heat resulting in low expansion and contraction, especially desirable when used in moulds. The low temperature does not affect glue or gelatine moulds. It is used for running mouldings, cornices and ornamental use of a similar type as it can be worked so smoothly and produces a perfect, smooth surface.

Mixing Directions

Mix with water only and bring to proper consistency for use.

GOLD BOND PATCHING PLASTER

National Gypsum Company with its years of experience in manufacturing plaster has perfected this easier-working patching plaster. Made of highest quality gypsum and requires only the addition of water. Spreads smoothly and hardens to a rock-like finish without danger of shrinkage. Pure white color. Supplied in $2\frac{1}{2}$, 5 and 15 pound cartons.

BEST BROS. KEENE'S CEMENT PRODUCTS

Made of Selected Gypsum Rock of Exceptional Purity.

The Toughest, Most Durable and Whitest Finish Coat Obtainable



ADE of purest gypsum rock, Brist Bros. Keene's Cement is the whitest finish plaster obtainable and produces a wall with extreme durability. Because of its density it excels for wainscots in kitchens and baths and is also used extensively for the finish coat in auditoriums, public buildings and other places where the walls will be subjected to unusually hard wear or abuse. For running moulds and ornamental plastering effects, Best Bros.' Keene's Cement has been the "old standby" of plasterers for many years because of its unmatched high quality and uniformity.

TYPES AND USES Best Bros. Keene's "Regular"

Standard grade for ordinary plastering. It is of good color and fairly coarse grind so as to mix readily with lime putty; has a tensile strength of over 600 lbs. per sq. in. in 7 days; an initial set of 2 hours and a final set of 4 hours.

Best Bros. Keene's "Fine"

Same tensile strength and setting time as the "Regular" grade but is ground finer and is of uniform purity of color, being made from hand picked rock. Used for backing up artificial marble; for making caen stone; for various other effects in ornamental plastering; and, occasionally, for finish coat.

Best Bros. Keene's "Fast Finish"

Manufactured specifically for a smooth finish coat, and is made to set up more quickly than "Regular" grade when mixed with lime putty. Designed to overcome the long interval of time that has previously been necessary between the application and the final troweling of a Keene's Cement finish. It is ground the same as the "Regular" grade; has a job set of 2 hours; and a tensile strength of over 500 lbs. per sq. in.

Best Bros. Keene's "Quickset"

Designed specifically for castings, running mouldings, precast travertine, and similar purposes where the material is used neat and has to set in the shortest time. It is finely ground; of pure white color; has an initial set of 20 minutes and a final set of 35 to 40 minutes. Tensile strength, 600 lbs. per sq. in.



(above) Department of Commerce, Washington, D. C., Best Bros. Keene's Cement used for 3¾ miles of corridors in this building because of its greater durability.



(below) Hospital rooms must be able to "take it." Best Bros. Keene's Cement is invariably the choice of architects and contractors because of its proven durability for the past 50 years.

Best Bros. Keene's "Superfine"

This grade is used only for the facing of artificial marble. It is very slow setting, having an initial set of 4 hours and a final set of 8 hours. It is pure white and very finely ground.



Medicine Lodge, Kansas . . . The mammoth plant of Best Bros., oldest and largest manufacturer of Keene's Cement in the country. Now operated as a division of National Gypsum Company.

GOLD BOND FINISH LIME

Gold Bond Lime from Famous Ohio Lime Country

The very finest lime deposit in the world is that in the northwestern Ohio dolomite lime fields. This is located a few miles south of Toledo and by far the largest quantity of finish lime produced in the country comes from producers located within an area of a radius of about five miles.

Gold Bond Lime is produced in this area at our plant at Luckey, Ohio, and the purity of the lime ranks with the finest produced in this high quality lime producing section.

The Quality of Dolomite Limestone

The chemically pure dolomite limestone contains 45.5% magnesium carbonate and 54.5% calcium carbonate. A. S. T. M. specifications require a 95% minimum oxides of the two combined. The Gold Bond deposits average between 98% and 99% containing 55.56% Calcium Carbonate and 43.41% Magnesium Carbonate.

It is the magnesium carbonate, when properly burned which gives the plasticity and easy slip or working qualities of a building lime. It is due to the quality of plasticity that the dolomite lime is so favored by the trade. Limes of high calcium content are not as easily worked as the Ohio dolomite lime.

Automatic and Machine Controlled Burning of Lime

One of the important steps in the production of good lime is in the proper burning of the magnesium carbonate. As the calcium and magnesium carbonate require widely different temperature to change them to oxides by burning, it requires very careful regulation of heat. The National Gypsum Company has patented and installed apparatus which definitely controls the burning automatically as against depending on the skill of a fireman in control of his fires, so that overburning is a practical impossibility. Overburning makes the lime tough and hard working without "slip" and will not hold its water against the suction of the wall,

Hydration Scientifically Controlled

The process of hydration is also absolutely and automatically controlled by the equipment of this company. Lime as it comes from the kiln exists as calcium and magnesium oxides. A definite percentage of water is added which combines chemically with the calcium oxide but *not* with the magnesium oxide. The lime is then ground and sacked.

The Reason for Soaking Lime Overnight

The small amount of water used in hydration does not combine with the magnesium oxide. When soaked overnight, the magnesium oxide slowly reacts and forms a "jelly" which produces the slip and easy working qualities of the Ohio dolomite lime. It will therefore be readily seen that the more perfect the hydration of the magnesium the greater the plasticity of the lime

Plasticity the Test of Quality of Gold Bond Lime

One of the most important tests of lime is that of its plasticity. In the Federal Standard Stock Catalogue, SS1L-351, Section IV, Part 5, E-6, it requires that finishing hydrated lime shall have a plasticity figure of not less than 200. The minimum value which our plant specifications allow to be shipped as finish lime is 300.

Mixing Gold Bond Finish Lime—Fill water tight box about two-thirds full of clean water. The dry lime should then be sifted gradually into the water until fully soaked. Enough excess water to provide 1 to 2 in. of water over the lime should be supplied. Soak overnight. In application, mix 3 parts of lime putty by 1 part of dry gauging plaster by volume. Mix thoroughly.

Covering Capacity—Under average conditions, the proportions specified should cover approximately 500 to 700 sq. yds. per ton of lime. Shipped in 50 lb. paper bags.

GOLD BOND MASON'S LIME

A hydrated time for use with lime cement and sand, or lime and sand mortars, or for concrete construction. Used by mason

contractors wherever a good easy working lime, which will bulk well in putty is required. Shipped in 50 lb. paper bags.

Gold Bond Finish Lime Bag.





Gold Bond Mason's Lime Bag.

GOLD BOND COLOR TEXTURE

A Plastic Texture Finish for Walls and Ceilings That Is Supplied Already Tinted Six Modern Pastel Shades and White . . . For Use Over Practically Any Surface The Recommended Decoration for Gypsum Wallboard

Beautiful Textured Walls at Low Cost

The artistic richness of textured interiors often gives the impression that they are expensive. Instead, the cost is invariably even less than wallpaper when genuine Gold Bond Color Texture

is used, for this reason: In new construction, Color Texture is applied directly over the base plaster, eliminating the lime putty or white finish coat. In addition, the cost of wallpaper or other decoration is also saved.

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Another important item—textured walls are permanent whereas papered rooms have to be done over every few years. For actual beauty, there is no comparison between textured rooms with their interesting designs and wallpaper with its monotonous patterns repeated over and over. The most expensive wallpapers are often mere imitations of texture designs.

Gold Bond Color Texture is simply mixed with water; applied with paint brush or trowel in a thin coat—16 to 32 in. thick; then textured with stipple brush, rubber sponge, whisk broom or

Easy Application

crumpled paper. A direction sheet is enclosed in each carton giving specific instructions for application over practically every type of surface.



Six Colors

Color Texture comes in Ivory, Light Cream, Light Buff, Light Green, Pink, Light Blue and White. For special color schemes, White Color Texture is used and decorated to suit with Gold Bond Casein Paint (see page 44)

. . . Color Texture is supplied in 10 and 25 lb. cartons.

Greater Coverage with Color Texture

Two important advantages contribute to make Gold Bond Color Texture the most popular texturing material and incidentally, the most economical. First, it comes already colored and requires no further decoration. Second, it is a casein base product with outstanding texturing qualities and dries to a hard, durable finish. Coverage is double that of many textures because only a thin coating is required for even the most elaborate texture designs.

Easily Cleaned

Color Texture interiors can be kept clean and fresh-looking by going over the surface lightly with a damp cloth. . . . Caution! Not all texturing materials can be cleaned this way. Color Texture can because of its casein base.



Charming textured interiors in light tints are always warm and inviting. In complete harmony with any type of architecture; any style of furnishings.

Typical Designs Produced With Gold Bond Color Texture

The Progressive Steps to Secure the Finish Are Shown from Left to Right



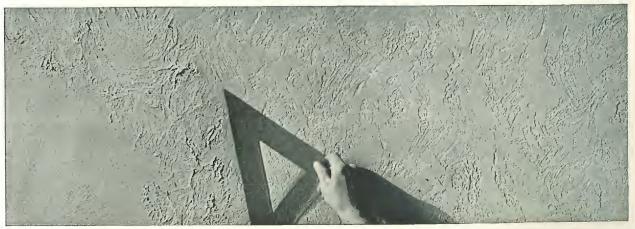
No. 1 Fine Stipple Gives the effect of a sand finish. Apply thin coat of Color Texture with trowel or paint brush. Smooth to uniform thickness

with trowel. Texture with a fine stipple brush, cleaning brush occasionally to insure uniform texture. Surface may be sand papered if desired to remove any sharp points.



No. 2 English Trowel Finish A light trowel finish showing marks of trowel. Apply thin coat with trowel or paint brush. Then trowel surface lightly, using

back edge of trowel in a curving upward stroke to secure this effect. If stronger texture is desired apply Color Texture thicker and use more pressure when drawing the trowel.



No. 3 An Interesting Texture
This has effect of considerable movement. Apply thin coat of
Color Texture with trowel or paint brush. Then add heavier

texture with rubber sponge, using face of sponge in a slightly swirling up and down motion. Drag triangle lightly over surface to create high-lights.

GOLD BOND CASEIN PASTE PAINT

The Newest in Fine Interior Paint . . . Dries in One Hour with No Turpentine Odor Easier to Apply with Greater Coverage . . . Highest Light Reflection Without Glare

Gold Bond

bor interior

Gold Bond Casein Paint brings new color and beauty to modern interiors at a real saving in time and money. Every day, more decorators are swinging over to this remarkable interior paint which offers all these advantages:

Dries in an hour. No turpentine odor. Takes water as a thinner. High light reflection. Better hiding power. Greater coverage.

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Self-leveling. Won't yellow with age. Non-inflammable. Lime-proof colors.

With all the above advantages, Gold Bond could command premium prices, but on the contrary it costs considerably less than most interior paints for this reason: Gold Bond Casein Paint comes in modern, paste form and is quickly thinned with water (two quarts of water to a gallon of paste). When buying a gallon of Gold Bond, keep in mind that you will actually have six quarts of smooth, creamy interior paint after the water has been added.

Important! Because water is used as a thinner, do not confuse Gold Bond Casein Paint with calcimine. Instead, it is a genuine casein-base paint that won't chip, peel, flake or dust-off. Specified by architects to meet the most exacting requirements and the choice of leading interior decorators.

For Jobs in Every Price Range

Quality alone has prompted the use of Gold Bond Casein Paint in the finest homes in the land; theatres, hotels and public buildings. Yet, the surprisingly low price permits its use for all kinds of interior painting jobs including factories, lofts, cheap apartments, public garages.

One Hour Drying . . . No Turpentine Odor

Restaurants, bakeries and food stores of all kinds used to dread painting because the strong turpentine odor simply "killed" business. Now they can decorate with Gold Bond without fear of driving away customers because there is no turpentine aftersmell. . . . Hotel rooms can be repainted in the morning and occupied the same night.

High Light Reflection Without Glare

The high light reflection of Gold Bond Casein Paint is of utmost importance in offices, stores

and factories, where better lighting means greater efficiency. White Gold Bond Casein Paint reflects over 98% of the light striking it and the colors rate correspondingly high. Lighting bills are cut as much as

Nine Pastel Colors and White

Gold Bond Casein Paint is made in White, Old Ivory, New Cream, Buff, Rich Tan, Sky Blue, Pearl Grey, Old Rose, Deep Orchid, Green. Quart, gallon and 5-gal. cans, also 30-gal. drums.



Note the contrast between the painted portion of this auditorium ceiling and the barn-like appearance of the section still to be done. . . . Doesn't require much imagination to figure what the saving in lighting cost will be.



Superintendents of many hotels and office buildings use Gold Bond exclusively to keep rooms looking smart and inviting, . . . They report, "It's cheaper and quicker than washing walls. Rooms can be redecorated like magic in just a few hours."



GOLD BOND PAINT PRODUCTS

GOLD BOND DEEP COLORS

Concentrated Casein Colors for Tinting White Gold Bond Casein Paint . . . Also Used Full Strength as Art Colors

Gold Bond Deep Colors are concentrated casein paints in paste form. Made of pure color pigment, ground in casein and supplied in twelve brilliant colors, also black and white. They are used for three distinct purposes: as tinting colors for White Gold Bond Casein Paint; as fine interior paints by simply adding water as a thinner; as artists' colors for showcards, advertising displays and window backgrounds . . . supplied in half pint glass jars, also quart and gallon' cans.

Twelve Colors, Black and White

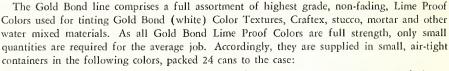
Bright Red, Orange, Yellow, Emerald, Blue, Violet, Indian Red, Ochre, Raw Sienna, Burnt Sienna, Raw Umber, Burnt Umber, Black, White.

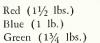


An Oil-Base Primer for Use Under Gold Bond Casein Paint, Oil Paint, Calcimine or Texture

Surfaces with excessive suction or uneven absorption should always be given a coat of Gold Bond Pigmented Primer before painting. It "kills" suction and provides a smooth, even base for the paint. Saves the danger of a streaked or spotty job and makes the paint go farther as it actually serves as a first coat. Supplied in quarts, gallons and 5-gal. cans.

GOLD BOND LIME PROOF MORTAR COLORS





Raw Umber (1 lb.) Black (1¾ lbs.) Yellow (¾ lb.) Raw Sienna (1¼ lbs.) Burnt Sienna (1¼ lbs.) Burnt Umber (1¼ lbs.)

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Note: All containers are the same size. The difference in weights is due to the varying densities.

Mixing

Mix the dry color with a little water and stir thoroughly to form a thin paste. Strain this mixture through a fine mesh screen to remove lumps. Then add to the wet mortar, texture or other material to be colored.

Important! When adding color to the wet mix, keep in mind that the tinted material when dry will be lighter in color.

GOLD BOND SPACKLING COMPOUND

For Repairing Cracks in Plaster, Concrete, Tile, Etc. Also for Resurfacing Doors, Trim and Furniture

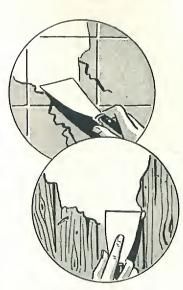
Gold Bond Spackling Compound is a smooth-working material for repairing cracks, filling in dents and irregularities; also for resurfacing doors, furniture, etc., prior to painting. Is simply mixed with water, applied with a wide putty knife and dries quickly to a hard white surface. By adding a little white-lead, spar varnish or colors-in-oil, Gold Bond Spackling Compound makes an excellent Swedish Putty.

A Handy Material with One Hundred and One Uses

Gold Bond Spackling Compound may be used over practically any surface including plaster, wood, concrete and metal. To mention a few of its more popular uses . . . for repairing cracks in plaster, wood trim, ceramic wall tiles, metal ceilings, brick, concrete, stone, etc.; for resurfacing checked paint, doors, furniture, toys; for filling in around pipes and wires, filling rat holes, etc. Supplied in handy 1-lb. and 5-lb. packages.







GOLD BOND CALCIMINE

A Full Line of Calcimines Including an Improved Cold Water Calcimine; Also Hot Water Calcimine and DeLuxe Art Colors for Posters and School Work

GOLD BOND COLD WATER CALCIMINE

ERE at no extra cost is a cold water calcimine that's *made* easy to mix. Decorators are quick to appreciate the saving of time in mixing due to a new method of processing the glue base. When water is added, the powder goes into solution quicker and makes a smoother, creamier mix.

Gold Bond Cold Water Calcimine provides a beautiful decoration that dries quickly to a soft, velvety finish without glare; is non-inflammable and odorless. For use over practically any surface including plaster, brick, cement block, wallboard and canvas.

10 Non-Glare Colors

Gold Bond Cold Water Calcimine is supplied in 5-lb. and 25-lb. bags in these colors: Ivory, Cream, Peach, Buff, Beige, Gray, Blue, Green, Rose and White. Where special colors are desired, white calcimine may be tinted to suit with Gold Bond DeLuxe Art Colors described below.

GOLD BOND HOT WATER CALCIMINE

A very high grade of calcimine that requires only the addition of boiling water to make a rich, creamy paint. Easy to apply and dries quickly to a soft, colorful finish without glare. Non-inflammable and odorless.

Gold Bond Hot Water Calcimine is supplied in 5-lb. and 25-lb. bags in these colors: Ivory, Cream, Deep Cream, Fawn, Buff, Blue, Green, Gray, Rose and White. For special colors use white calcimine and tint with Gold Bond DeLuxe Art Colors.

GOLD BOND DELUXE ART COLORS

Artistic colors for showcards, posters, window-backgrounds, stage settings, classroom uses and for tinting white calcimine. Made with rich color pigments, combined with a specially processed self-sizing glue base and requires only the addition of hot or cold water.



No excuse for dark, drab-looking rooms when it's so easy and inexpensive to redecorate with Gold Bond Calcimine. Your choice of many bright, colorful tones.

Gold Bond DeLuxe Colors are supplied in handy 1-lb. cartons in these colors: Yellow, Orange, Brown, Red, Turquoise, Blue, Blue Green, Lettuce Green, Dark Green, Magenta, Maroon, Violet, also Black and White.

GOLD BOND WALL SIZE

Made especially as a primer for Gold Bond Calcimine but also used extensively by decorators for general sizing work. Provides, at low cost, a perfect foundation for wall paper, oil paint, varnish, texture, etc., and incidentally increases the coverage of the latter materials.

Before using a colored decoration, it is always advisable to give the surface a sizing coat to equalize the suction and thereby eliminate the chief cause for streaky or spotty jobs. If a little dry color is added to the mix, the sizing coat then becomes a combination primer and first coat. Gold Bond Wall Size is supplied in 1-lb. cartons and requires only the addition of water.



MASTER SPECIFICATIONS FOR INTERIOR LATHING AND PLASTERING

GENERAL NOTES

Uses of Master Specifications

It is intended that the following specifications will cover practically all conditions which are usually met with in ordinary construction. Only the paragraphs applying to the particular type of job should be selected and used by the architect. Special lathing bases are not included and if these are used the method of application and use of plaster should follow the recommendations of the manufacturer.

Consulting Service on Lathing and Plastering

The National Gypsum Company has over two hundred repre-

sentatives located throughout its territory who will be glad to consult with architects and lathing and plastering contractors on any lathing or plastering problems which may arise. This is in addition to the technical laboratory and research department located at the Clarence Center, N. Y., plant, which may be called upon at any time for technical information.

New and Old Work

The following specifications are written only for new work. For alteration work the clauses will have to be altered to cover such work especially in regard to where old and new work join.

SECTION 1

LATHING AND PLASTERING SPECIFICATIONS

Note: (a) Acoustical Plaster—See page 89 for specifications on Gold Bond Trowel Finish Macoustic.

(b) If trade practice requires separate specifications for lathing and for plastering, the specification should be written accordingly.

I. General Conditions

The General Conditions of the Contract of the American Institute of Architects (current edition) shall form a part of this specification. (If the A.I.A. Standard Form is not used then refer to the one used.)

2. Scope

2-1. This contractor shall furnish all materials, labor, scaffolding and staging which will be required to satisfactorily complete the lathing and plastering work to be executed as hereinafter described or indicated on the contract drawings or schedules.

3. Extent of Work-Furring, Lathing and Plastering

3-1. All Metal Furred or Suspended Ceilings

Note: Wood furring or hung ceilings should be specified under car-

- 3-2. All metal wall furring and miscellaneous metal furring
- 3-3. All metal stud partitions
- 3-4. All lathing
- 3–5. All interior plastering including Keene's Cement as follows:

Note: Here describe exceptions and amplifications in regard to lathing and plastering or refer to schedule of finishes and drawings.

- a. Note where plaster is to be omitted.
- b. Note where one or two coat plaster is required.
- c. Note where white finish is omitted.
- d. Note ceiling or beams, cornices, etc., to be furred (Type furring)
- e. Note walls to be furred (Type furring)
- f. Note if lath or base and scratch coats back of tile work, marble or slate are to be included or omitted from this contract.

4. Relations with Other Trades

- 4-1. Temporary Enclosures Temporary cloth enclosures over all window and other exterior openings throughout the portions of the building to be plastered shall be provided and maintained by the carpenter during application and drying of plaster.
- 4-2. Temporary Heat, Light and Water—Shall be supplied by others,

Note: Plastering Contractor or General Contractor may be required to supply salamanders, fuel, heat and maintenance without fire hazard before heating plant is installed, depending on contract agreements. After heating system is installed heat may be supplied by heating system through the General Contractor or Owner.

- 4–3. Grounds and Furring—All necessary wood grounds for furring and lathing shall be installed by others.
- 4–4. Inspection of Grounds and Plastering Bases—All grounds and plastering bases shall be inspected by this contractor from time to time and before commencing his work and he shall report to the Architect and General Contractor any defects in such work which may in his opinion affect satisfactory finish, accuracy and stability of the work under his contract.
- 4–5. Failure to report such defects requiring correction or replacement before commencing his work shall be construed as acceptance of such work by this contractor and he shall not be relieved of responsibility and obligation under his guaranty.

5. Protection of Work and Building

- 5–1. All finished work, such as woodwork and glass, shall be adequately protected by Contractor from damage and plaster droppings and he shall make good such damage at his own expense and without cost to the owner.
- 5-2. Furnish, install and maintain waterproof protection at source of water, under all mixing boxes and gauging barrels.
- 5-3. Any spill or drip of any kind shall be taken up at once and any sand, sawdust or protection for floor if removed shall be replaced with new material.
- 5-4. This Contractor shall be responsible for all damage occasioned by the mixing, handling and storing of mortar and materials or through his failure to provide necessary protection.

6. Patching

6–1. All plaster work which is damaged by this Contractor shall be made good by him at his own expense.

6–2. After the erection of finish by other trades, this Contractor shall patch all plaster which is damaged by other mechanics but the cost shall be paid for by the Contractor who caused the damage.

6-3. This Contractor shall cut out, when required, any defect in his work and replaster and leave in perfect condition.

7. Preparation of Surfaces

7-1. This Contractor shall clean the surface to which or against which plaster is to be applied, removing all mortar droppings, etc., as may be necessary, to allow plaster to adhere to same,

7–2. Concrete surfaces and combination tile and concrete surfaces which are too smooth to receive plaster shall be sufficiently roughened by hacking to secure adequate bond.

Note: (Hacking will be done by others.) Concrete forms should be made of rough boards and be free from oil.

7–3. Concrete surfaces shall be dry and brushed free from dust, soot, grease and oil. (Burn off oil or grease with torch.) Any low places in masonry walls shall be filled out and any unevenness shall be straightened with unfibered plaster ahead of base coat.

7-4. Efflorescence shall be removed with a wire brush and washed with muriatic acid and water, one (1) to five (5) solution. Remove acid by thorough washing with clean water.

7-5. Wood Lath shall be wetted down as specified under Wood Lath, Sec. 5, Par. 1-1-1.

7-6. Gypsum lath and fiber insulating lath shall not be wetted down at any time.

7-7. Where necessary for suction, wet brick, concrete and clay tile surfaces before plastering.

8. Wood Grounds

All wood grounds shall be provided and installed by the Carpenter and shall be of such thickness and so set to provide for ½ in. thick plaster over all types of laths and gypsum tile and 5% in. thick plaster over all brick, clay tile and other masonry.

Wood Lath		$\frac{3}{4}$ in. grounds
Gypsum Lath 3/8 in.	thick	.7/8 in. grounds

Insulating Board 1/2 in. thick1	in.	grounds
Meral Lath-Expanded, Sheet and Wire	3/4 in.	grounds
Gypsum Tile	1/2 in.	grounds
Brick and Clay Tile	5⁄8 in.	grounds

Note: Thickness of grounds includes thickness of lath.

9. Sample Finishes

Where special textured finishes are required, this Contractor before proceeding with the work shall prepare and erect, where directed by the Architect, sample panel of each finish required, not less than 3 ft. square. These samples shall be made to the satisfaction of the Architect. After approval by the Architect, the finished work shall equal the samples in all respects.

10. Workmanship

All work shall be executed by skilled workmen in such a manner as to fulfill the requirements of the drawings and specifications.

II. Cleaning

11–1. After completion of his work, this Contractor shall remove from the building all scaffolding and tools of every sort used by him, taking care not to damage work of the other trades.

11–2. All plaster rubbish, plaster droppings, etc., shall be removed by this Contractor and the building left broom clean.

11-3. (This Contractor shall remove all plaster from glass and other finish and leave in first class condition.)

11-4. (The removal of debris and cleaning required, resulting from the work of the Contractor, shall be done by others.)

12. Guarantee

12-1. This Contractor shall furnish a written guarantee as a part of this contract, warranting all work and materials under this contract against defects for a period of (one year) (specifying time) from the completion and acceptance of the work as shown by date of final payment and he binds himself to repair and replace any defect which may develop within that period, without additional payment beyond the amount of the contract, when ordered to do so by the Owner or the Architect.

12-2. (This shall also include the cost or repairs or replacement of any material, decoration or other finish damaged by the defects.)

SECTION 2

FURRING AND SUSPENDED CEILINGS

(Specifications for Gold Bond "Clip-on" Systems—Suspended Ceilings and 2-in. Solid Partitions are given in detail in separate books sent gratis upon request.)

Wood Furring and Suspended Ceilings

Note: Wood furring and suspended ceilings which are to be plastered should be included under Carpentry.

2. Masonry Furring

Masonry furring such as hollow blocks of tile, etc., should be included under Masonry.

3. Materials

3-1. Metal Furring—Shall be Gold Bond Cold Rolled Channels. (See page 26.)

3–2. Metal Partition Studs—Shall be Gold Bond Cold Rolled Channels of sizes specified.

4. Metal Furred Suspended Ceilings

4-1. Location—Ceilings shall be furred or suspended with

metal furring where so indicated on plans or on schedules. Where finished surfaces of plastered ceilings are six (6) in. or more below the soffit of floor construction, they shall be considered as suspended ceilings.

4–2. Hangers—Shall be placed not to exceed 4 ft. center to center in either direction. The minimum size for hangers shall be No. 8 galvanized wire, 1 x $\frac{3}{16}$ in. flats or $\frac{7}{32}$ in. round mild steel rods.

The upper ends of hangers if wire, rods or flats, shall be of sufficient length to wrap around beams or provide a suitable anchorage in concrete or tile. Where steel beams or purlins are not more than 4 ft. center to center, hangers may be attached directly to them. When hangers are hung from concrete beams or arches, the hangers shall be placed before concrete is poured. When ceilings are hung from terra cotta floors, hangers may be installed at tile joints during erection, or may be installed after tile is in place, holes bored clear

through tile and secured on upper side by steel rod or toggle bolt.

4–3. Runner Channels—Shall be placed not to exceed 4 ft. on centers, and shall be not less than 1½ in. cold or hot rolled channels weighing not less than 442 lbs. per thousand lineal feet. Lower end of wire hangers shall be secured to runner channels by three twists around same; lower end of rolled hangers shall be secured to runner channels by two twists, or by wiring; lower end of flat steel hangers shall have holes punched at the proper distance to which the runner channels shall be bolted with not less than 3½ in. diameter bolts.

Runner channels shall conform to the contour of the ceiling.

4-4. Furring Channels—Shall be not less than $\frac{3}{4}$ -in. channels with a minimum weight of 276 lbs. per thousand lineal feet; they shall be erected at right angles to the runner channels of No. 16 galvanized annealed wire at each crossing, or by No. 9 wire hairpin clips.

Furring channels shall be spaced as follows:

Not over 12 in. apart for 3.0-lb. flat expanded metal lath is used, or over 16 in. apart for 3.4-lb. flat expanded metal lath; not over 16 in. apart for 3.0-lb. flat rib expanded metal lath; not over 19½ in. apart for 3-lb. 3/8-in. rib expanded metal lath; and not over 24 in. where 3.4-lb. 3/8-in. rib expanded metal lath is used.

4-5. Metal Lath—Shall weigh not less than 3.00 lbs. for ceiling and 2.50 lbs. per sq. yd. for side walls, provided, however, that minimum weight shall be governed by spacing of furring channels as specified in the preceding paragraph.

The metal lath shall be wired to the furring channels (the long dimension of the sheet being across the channels) by No. 18 gauge galvanized annealed wire every 6 in. along the furring channels; there shall be one tie on side laps half way between channels. Lap sheets at sides and ends not less than 1 in.

Where ceilings, cornices or other features, formed with metal lath, finish against masonry walls, partitions or arch soffits, the lath shall extend onto masonry surface at least three (3) in.

4-6. Brackets for cornices, beams, etc., shall be built up of 1-in. steel members spaced same as for runner channels and shall be securely fastened to masonry or other structure supports. Cross fur and lath same as for ceilings.

5. Metal Stud Partitions

5-1. Solid Partitions-

- (a) Metal Studs for solid partitions shall be not less than 3/4-in. cold or hot rolled channels weighing not less than 276 lbs. per thousand lineal feet, and spacing of studs shall conform with weight of lath as in paragraph (a) of these specifications.
- (b) Studs shall be secured in position by inserting ends in holes punched 3/4 in. in top of concrete or other masonry floors or in soffits of masonry ceilings, or by attaching to stud shoes, or by placing ends in holes drilled in wood floor bucks anchored to masonry floors at 4-ft. intervals; on floors by wiretying to nails driven 1 in. into floors and projecting at least 1 in. above. Where metal lath ceilings are used, a small hole shall be made in the ceiling lath and the end of channel allowed to project through it and be wired to a channel attached to the ceiling lath.
- (c) Splicing of studs shall be made by lapping chan-

nels not less than 8 in. with flanges interlocked and tied.

- (d) Erection of metal lath, for solid lath and metal stud partitions, shall be the same as that given in Par. (1) excepting that metal lath is applied only on one side of channel studs and tied instead of nailed or stapled.
- (e) Note: Solid partitions over 6 ft, high shall be temporarily braced horizontally on the channel side at intervals not exceeding 6 ft, vertically before applying plaster. Such bracing shall not be removed until scratch coat on the lath side of the partition has set.
- (f) In every case one channel shall be set next to wood buck at each side of openings and double-wired securely to 8d nails driven on each side of channel in pairs into buck at 2-ft. intervals. Bottom of door buck shall be securely spiked to wood plug in floor, or attached by metal anchors.
- 5-2. Hollow Metal Lath Partitions—Use Specifications (5-1) but call for wide single channel, or a double row of 3/4-in. channels with separators every 2 ft. vertically, and metal on both faces of partition.

6. Metal Wall Furring

- 6-1. Where wall furring is indicated on plans or in schedule for walls, beams, girders and other vertical surfaces, it shall consist of 3/4-in. vertical channels spaced not more than (specify spacing) (12-in.) on center and shall extend from floor to ceiling arch and be firmly secured top and bottom. Intermediate braces shall be provided as specified for metal stud partitions. Flanges shall face masonry and shall be secured with special hook nails or other device best suited to the masonry or mortar joints.
- 6–2. Pipe and Ducts—Pipe and ducts required to be enclosed shall be furred as specified for wall furring. Where required to support plumbing fixtures, additional horizontal members of $1\frac{1}{2} \times \frac{3}{16}$ in. flats shall be wired to vertical members at proper heights to support fixtures.
- 6-3. Pipe Chases—Over 12 in. wide shall be furred in same manner as wall furring with metal lath extending at least 3 in. each side of opening.
- **6–4.** Heads and Jambs—Fur and lath heads and jambs of windows and doors, when specified or indicated to be plastered, in same manner as for wall furring.
- 6-5. Corner Beads—Corner beads shall be installed on all exterior angles in plastered rooms or spaces to run from floor to metal corner bead or to spring line of arches where arch heads are used and shall be of type and gauge as specified under materials.
- **6–6.** Metal Grounds—Shall consist of heavily galvanized steel and shall be set true to plane of finished wall surface and shall be securely fastened to the masonry, furring or other support.
- 6–7. Miscellaneous Furring—(List here other miscellaneous furring required as for stair soffits and any special features requiring metal furring and lathing.)
- 6–8. No furring shall be placed until all pipes, conduits, etc., have been permanently placed.
- 6-9. General—All furring and lathing, for all vertical or horizontal surfaces for walls, cornices, beams, arches, carved work, etc., shall be level, plumb true and rigid and accurately formed so that all surfaces to receive plastering shall be generally one (1) inch back of finished surface.

SECTION 3

LATHING AND PLASTERING ACCESSORIES

I. Materials

- 1-1. Wood Lath—Shall be No. 1 Grade, or better, free from knots, sap and bark, approximately $\frac{3}{8}$ in. thick, $\frac{11}{2}$ in. wide and either 32 in. or 48 in. long.
- 1–2. Gypsum Lath—Shall be Gold Bond Gypsum Lath $\frac{3}{8}$ in, thick (or $\frac{1}{2}$ in. thick)—16x48 in. (or 16x32 in. or 16x36 in.).

1-3. Metal Lath-Shall be Gold Bond Metal Lath, National Gypsum Co. (specify type, finish and weight for spacings on both horizontal and vertical installations). See pages 20 and 21 for metal lath. Recommendations of Associated Metal Lath Manufacturers, Inc., follow: 1-4. Minimum Weight of Metal Lath-(a) Expanded Metal Lath for Interior Work-

For vertical position, partitions, etc., attached to metal supports 12 and 13½ in. on center, lath shall weigh a minimum of 2.5 and 3.0 lb., respectively, except for solid partitions where 2.2 lath may be used on 12-in. spacing; and 3.4 lath on 16-in. spacing. For nailed-on partitions, maximum spacing shall be 16 in. for all flat laths, minimum weight

For tied-on ceilings attached to metal supports, maximum spacing shall be 12 and 13½ in, for 3.00 and 3.4 lb. flat lath; for nailed-on ceilings, maximum spacing shall be 16-in, for these laths,

(c) 3/8-in. Rib Lath-

For Nailed or Tied-on F	Partitions and Furring:	
For supports spaced not to	o exceed 19 in. on centers2.5	lb.
For supports spaced not to	exceed 24 in, on centers3,0	lb.
For supports spaced not to	exceed 31½ in. on centers4.0	lb.
For Nailed or Tied on Co	eilings:	

ror Named or Tied-on Cenings;	
For supports spaced not to exceed 19 in. on centers2.75	lb.
For supports spaced not to exceed 24 in. on centers3.0	lь.
For supports spaced not to exceed 311/2 in. on centers	lb.

- 1-5. Cornerite—Shall be Gold Bond Cornerite.
- 1-6. Corner Beads-Shall be Gold Bond Corner Bead (specify type).
- 1-7. Base Screed-Shall be Gold Bond Base Screed (specify
- 1-8. Picture Mould-Shall be Gold Bond Metal Picture Mould (specify type).
- 1-9. Metal Plaster Arches-Shall be Gold Bond Metal Plaster Arches (specify type).

2. Application of Wood Lath

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2-1. General—Lath with wood lath all (exterior stud walls) (wood furred walls) (stud partition) (ceiling beams or joists) (stair soffits), etc., which are specified to be plastered.

Note: It is recommended that ceiling over furnace and fuel room be lathed with gypsum lath or metal lath for fire protection or at least for a distance of 5 ft, beyond all sides of the furnace. Also stud walls enclosing furnace room.

- 2-2. All lath shall be spaced not less than 1/4 in, nor more than 3% in. apart, a space of 1/4 in. being left between abutting ends and shall be secured at each bearing with 3d lathing nails, using two (2) at each end and one (1) at each other
- 2-3. Lath shall be applied at right angles to the supports and joints shall be broken at not more than every seventh lath. No laths shall be carried from room to room. No lathing shall form long vertical joints or be set vertically to fill out at angles or corners.
- 2-4. Reinforce all re-entrant angles with Gold Bond expanded metal Cornerite and metal corner beads on all exterior angles. All strips shall extend at least 4 in. on each wall and shall butt at ends and not lap and shall be securely nailed or stapled at edges but not in corners.
- 2-5. Corner Beads—All external corners, both vertical and horizontal, shall be protected with corner beads, of the types or type specified for their full height or length; same to run from top of base to ceiling, heads or beams or to the spring line of arches.

- 2-6. Where wood lathing on walls, partitions or ceilings abut masonry work, strips of painted metal lath, extending at least 4 in. on each side of the intersection shall be securely fastened. Lath shall weigh not less than 2.5 lbs. per sq. yd.
- 2-7. Where heat pipes are concealed in walls or partitions, they shall be lathed over with strips of Gold Bond Gypsum Lath or Gold Bond Painted Expanded Metal Lath nailed securely to nearest supports.
- 2-8. Openings or where studs are spaced over 16 in. wide, as back of medicine cabinets, etc., shall be lathed with expanded metal ribbed lath.

Note: Add here any other special condition requiring metal lath, such as back of tile wainscot, etc.

2-9. Grounds for use with wood lathing shall be 3/4 in. thick, including thickness of lath and shall be installed as specified under Carpentry.

3. Application of Gold Bond Gypsum Lath

- 3-1. Lath with Gold Bond Gypsum Lath all (exterior stud walls) (wood furred walls) (stud partitions) (ceiling beams or joists) (stair soffits), etc., which are specified to be plastered. Studs and joists shall be spaced 16 in. on centers.
- 3–2. Nailing edges of lath shall have at least ½ in, bearing on all studs, joists, etc., the length of the lath laid at right angles to studs. Horizontal joints shall abut, breaking joints in each course. Vertical joints of wall shall be staggered with ceiling joints so they do not meet. Vertical joints on opposite side of partition shall be staggered and not occur on opposite sides of the same and sides of the same stud.
- 3-3. Nails shall be 3d $1\frac{1}{8}$ -in., 13 gauge, $\frac{3}{8}$ -in. head, blued lathing nails spaced approximately 5 in. apart using 4 nails to each stud—16 nails to a 16 x 48 in. panel. First nail about $\frac{3}{8}$ in. from edge of panel. Nail center bearing first, then outer edges.

- 3-4. Fit lath tight together at all re-entrant angles and corners. Fit lath accurately around all electric boxes and similar openings. Cutting shall be done with sharp hatchet or knife and then breaking over a straight edge.
- 3-5. Where any gypsum lathed wall, partition or ceiling abuts masonry, strips of Gold Bond Reinforcing Mesh or Gold Bond Expanded Metal Lath weighing 2.5 lbs. shall extend at least 6 in. on masonry and 6 in. on gypsum lath, fastening edge to masonry and to gypsum lath.
- 3-6. All re-entrant angles shall be reinforced over the gypsum lath with Gold Bond Cornerite extending 3 in. each side. Ends shall abut and not overlap.
- 3–7. All grounds for gypsum lath shall be 7/8 in thick (including thickness of lath furnished, installed and specified under Carpentry).

4. Application of Gold Bond Gypsum Lath, Perforated or with Aluminum Foil Insulation

Same Specifications as for standard Gold Bond Gypsum Lath. For ceilings of Perforated Gypsum Lath with one hour fire rating, see instructions on page 15.

5. Application of Gold Bond "Floating Wall" System See page 18 for specifications.

6. Application of Gold Bond Metal Lath

- 6-1. General-Lath with expanded metal lath all studs and beams for (interior stud walls) (wood furred walls) (stud partitions) (ceiling beams) (furred or suspended ceilings) (stair soffits).
- 6-2. Application to Wood Supports-Metal lath shall be nailed to wood supports and nails shall be not less than 4d and fastened every six (6) in along each support. Side joints shall be wired once between supports.
- 6-3. All rib lath shall be fastened at all ribs to each support and shall be wired at edges once between supports.

- **6–4.** All metal lath shall be fastened to masonry with special hardened steel nails, self-clinching nails or other device best suited to type of construction.
- **6–5.** Attachment to Metal Supports —Metal lath shall be wired to metal supports at intervals not exceeding 6 in. with not less than No. 18 gauge galvanized soft annealed wire and shall always be tied where sheets lap at channels and at edges once between channels.
- **6–6.** Metal Lath shall be erected with the long dimension of lath across the supports; rib lath with the ribs against the supports.
- 6–7. Lath shall be first applied to ceilings and the sheets carried down 6 in. on side walls and partitions. If metal lath is not used on the ceilings, the lath shall start at the top of the wall and be bent and carried 6 in. on to the ceiling joists so that no joints shall occur at intersection of ceiling and walls.
- 6–8. On walls, lath shall be started on one stud away from the corner, be bent into corner and carried onto the abutting wall so as to avoid a joint at juncture of walls. Where 3/8-in. ribbed lath is used on ceilings or walls, it shall be butted into all joints, and strips of lath not less than 8 in. wide shall be bent into the shape of an "L" (Cornerite) 4 in. on each side and shall be securely wired along each edge of the sheet but not in corner.
- 6–9. Where any wall, partition or ceiling abuts masonry, the metal lath shall extend onto masonry at least 6 in. and be well fastened at edges to joints of the masonry.
- 6–10. Lath shall be placed so that the lower sheet laps over the upper (not vice versa) and shall be securely attached to supports. Nails or staples shall be so placed that they occur where sides of sheets lap at supports.
- **6–11.** Expanded metal shall be lapped at sides not less than 1/2 in, and at ends not less than 1 in. End laps shall occur only over supports.
- 6-12. Ribbed lath shall be lapped at sides by nesting outside ribs, and at ends, 1 in.

All grounds for metal lath shall be 3/4 in. thick including the lath and will be furnished and installed as specified under Carpentry.

Note: The metal lath specifications have been adapted from those of the Associated Metal Lath Manufacturers, Inc.

Note: No attempt has been made to include specifications for woven wire lath and many other forms of lath. For these, see Manufacturers' Specifications.

7. Metal Arches, Base Screeds, Corner Beads, etc.

- 7–1, Metal Plaster Arches—Gold Bond Metal Plastering Arches of the No. and shape as noted hereinafter or on the drawings, shall be securely set in position over the lath in accordance with the details. Corner beads at jambs shall join arch beads accurately without break.
- 7–2. Corner Beads—All external corners, both vertical and horizontal, shall be protected with corner beads, of the types or type specified for their full height or length; same to run from top of base to ceiling, heads or beams or to the spring line of arches.

Note: If beveled, chamfered or rounded corners are desired, make note where these will occur and change paragraph above.

7-3. Metal Picture Moulds—Gold Bond Metal Picture Moulds shall be installed in the following locations. (List here, or in schedule of finishes, or on drawings, spaces to have picture mould.)

Picture moulds shall be accurately set, true and parallel with ceiling line and substantially secured.

7-4. Metal Base Screeds or Wainscot Cap—Gold Bond Base Screed shall be installed in the following locations, (List here, or in schedule of finishes, or on drawings, spaces to have base screed for base, wainscot cap, etc.)

Note: Where special items such as metal bases, with or without electric wire ways; chair rails; door and window trim, etc., are desired, they should be included in the proper trade specification according to local jurisdiction.

SECTION 4

PLASTERING MATERIALS—BASE AND FINISH COATS

I. Materials and Mixing

- 1–1. General—All materials used in plastering shall be stored in a dry place above the ground and shall be handled in such a way as to prevent deterioration or intrusion of foreign matter into the plaster.
- 1–2. Lime, Gypsum and Cement shall be delivered and stored in original packages of the manufacturer. Any materials in containers showing water marks or which have been damaged or materials that have deteriorated shall be immediately removed from the premises.
- 1-3. Mixing boxes for base coats shall be clean and tight, approximately $3\frac{1}{2} \times 7$ ft. and 12 in. deep, and $2\frac{1}{2} \times 4\frac{1}{2} \times 10$ in. deep for finish coats and raised 4 in. at one end. Clean mixing boxes after each gauging.
- 1-4. Machine mixing shall be permitted in machines made for this purpose if they are cleaned after mixing and kept free of plaster from previous gaugings.
- 1-5. Tools shall be kept clean and shall not be rinsed in gauging water.
- 1-6. No more material shall be mixed than can be applied in one (1) hour. Do not mix one gauging with another. Plaster shall not be retempered after it has commenced to set.
- Note: Clean water and proper mixing following the direction of the Manufacturer are of extreme importance to good work.
- 1–7. Plaster shall be kept from freezing for 24 hours after application and no finish coat shall be applied to base which is frozen.

- 1-8. In hot, dry weather, all openings shall be enclosed with muslin screens or windows kept closed to prevent plaster from drying before it has set; after that, windows shall be opened to permit wall to dry quickly.
- 1-9. All materials for plastering, except sand, shall be as manufactured by National Gypsum Company, Buffalo, N. Y.

2. Water

Water shall be clean and fit to drink, free from oil, acids, alkali or vegetable matter.

3. Sand

- 3-1. Sand for base coats shall be sharp, clean and free from saline, alkaline, organic or other impurities. It shall be graded from fine to coarse in conformance with the Standard Specifications for Plastering Sand of the American Society for Testing Materials. Pass through six-mesh screen.
- 3-2. Sand for finish coats shall all pass a No. 12 screen and shall be white, hard, durable grains free from soluble salts or injurious amounts of organic matter.

4. Plaster

- 4-1. Base Coat Plaster—Shall be Gold Bond Gypsum Plasters.
- 4-2. Finish Plaster—Shall be Gold Bond Hydrated Lime Putty with Gold Bond Gauging Plaster or Gold Bond Gypsum Prepared Plaster (specify which).
- 4-3. Keene's Cement-Shall be Best Bros. Keene's Cement.

SECTION 5

BASE COAT PLASTER—(SCRATCH AND BROWN)

I. Cement Plaster

- 1-1. On Wood Lath—Scratch Coat—Shall consist of one (1) part of fibered plaster to two (2) parts by weight of dry sand.
- 1-1-1. Soak lath thoroughly 12 to 24 hours before, and again an hour or two before, plastering is started.
- 1–1–2. Apply in two coats, scratch coat to be applied with sufficient pressure to obtain a good key, filling all spaces between the lath and leaving a light coat over lath. Scratch surface thoroughly to secure bond for brown coat.
- 1–1–3. Brown Coat—Shall consist of one (1) part plaster (fibered or unfibered; specify which) to not more than three (3) parts by weight of dry sand. Second coat shall be applied as soon as scratch coat is set hard and at least ¾ dry, to a true and even surface. Surface of the second brown coat shall be darbied and broomed to afford a bond for the finish coat.
- 1–2. On Gypsum Lath or Insulation Lath—Scratch coat shall consist of one (1) part fibered or unfibered plaster to not more than two (2) parts by weight of dry sand.
- 1–2–1. The Gypsum lath shall not be wetted before applying plaster.
- 1–2–2. Scratch Coat—Apply with sufficient pressure to work plaster well into the joints. Scratch surface to provide bond for the brown coat.
- 1-2-3. Brown Coat—Same as above for wood lath.

1-3. On Wire or Metal Lath-

- 1-3-1. Scratch Coat—Shall consist of one (1) part of fibered plaster to not more than two (2) parts, by weight, of dry sand.
- **1–3–2.** First coat shall be applied with sufficient pressure to obtain good key, lightly covering lath. Scratch surface to secure bond for brown coat.
- 1-3-3. Brown Coat—Same as for wood lath.

1-4. On Brick, Clay Tile or Gypsum Tile-

- 1-4-1. Soak brick and clay tile and sprinkle gypsum tile before commencing plastering to reduce suction.
- 1-4-2. Scratch Coat—Shall consist of one (1) part of fibered (or unfibered) plaster to not more than three (3) parts, by weight, of dry sand.
- 1–4–3. Apply plaster to thickness of grounds (5% in.) in two (2) coats. Apply first coat in thin layer to obtain bond and double back immediately with second coat, straighten to true surface with darby and broom surface for finish coat.

2. Gypsum Sanded Plaster

2-1. Gypsum Sanded Plaster shall be applied same as above for Cement Plaster without the use of sand but with the addition of water.

2-2. Special Sanded Plaster—Shall be used for clay and gypsum tile and brick.

3. Gypsum Wood Fiber Plaster

Note: Wood Fibered Plaster is used invariably for one (1) and two (2) coat work, never three (3) coat work.

3-1. On Wood Lath-

- 3-1-1. Soak lath thoroughly 12 to 24 hours before, and again an hour or two before, plastering is started.
- 3-1-2. Scratch Coat—(Mixed with water.) Apply with sufficient pressure to obtain a good key, filling all spaces between the lath and leaving a light coat over lath. Scratch surface to secure bond for brown coat.
- 3–1–3. Brown Coat—(Mix equal parts of plaster and sand.) Apply to thickness to fill out to grounds and broom surface.

3-2. Gypsum Lath-

- 3-2-1. Gypsum Lath shall not be wetted before applying plaster.
- 3-2-2. Scratch Coat—(Mixed with water, no sand.) Apply with sufficient pressure to work plaster well into joints. Scratch surface to provide bond for brown coat.
- 3-2-3. Brown Coat—(Same as for Wood Lath above.)

3-3. On Wire or Metal Lath-

- 3-3-1. Scratch Coat—(Mixed with water.) Apply with sufficient pressure to obtain good key, lightly covering lath; scratch surface to secure bond for brown coat.
- 3-3-2. Brown Coat—(Mixed with equal parts of plaster and sand.) Apply to thickness to fill out grounds and broom surface.

3-4. On Brick, Clay Tile or Gypsum Tile-

Note: Do not specify wood fibered plaster for these bases.

4. Concrete Bonding Plaster (For Use on Concrete Surface)

(See notes regarding preparation of surfaces.)

- 4–1. Scratch Coat—(Mixed only with water.) Apply in one (1) or two (2) coats with as great pressure as possible, to thickness of not more than $\frac{3}{8}$ in. and score heavily for bond of finish coat which shall be applied as thin as possible.
- **4–2.** Gold Bond Wood Fibered Gypsum Plaster—May also be used (unsanded) for concrete surfaces in place of Concrete Bonding Plaster.

SECTION 6

FINISH COAT PLASTER

1. Smooth White Finish

(Lime Putty and Gauging Plaster.)

- 1-1. Hydrated Lime—Allow to soak twenty-four (24) hours.
- 1-2. Finish Coat-Shall consist of three (3) parts of lime

putty to one part of dry gauging plaster by volume equivalent to two (2) parts of dry, hydrated lime to one (1) part gauging plaster by weight, and shall be thoroughly and uniformly mixed.

1-3. It shall be applied after the base coat is hard, set and about dry. Sprinkle surface of base coat with water before applying finish coat when necessary to kill suction.

Note: Do not apply finish on a base coat containing frost.

- 1-4. Apply in two (2) coats, first light scratch coat and the second time filling in all imperfections and straighten by means of straight edges.
- 1-5. Trowel surface to desired finish, keeping wet with brush. Bring same to complete troweling before plaster has set. Surfaces shall be perfectly true and even without scratches, ridges, waves, chips, voids, cracks, etc. All angles must be true, sharp, straight and clean.

Prepared Gypsum Finish (Using Gold Bond Trowel Finish Plaster)

- 2-1. Finish Coat—Plaster is ready after thoroughly mixing with water, allowing to soak for ten (10) minutes without hoeing. Make mix very thin and creamy.
- 2-2. Base coats must be set and hard and about $\frac{3}{4}$ dry. If too dry, cut suction by sprinkling with clean water.
- 2–3. Apply finish in three coats; first coat applied as thin as possible to handle and scratch thoroughly into base coat. Let draw for a few minutes, then apply second coat, leveling up. Apply third coat as thin as can be handled, filling in cat faces and imperfections. Let draw and then trowel to smooth surface, applying water sparingly with brush, but not enough to kill face of plaster. Avoid joinings by working top and bottom of wall at same time. Finish coat shall not be less than \frac{1}{18} in. or more than \frac{1}{8} in. thick.

3. Sand Float Finish (Using Gold Bond Sand Float Finish)

- 3-1. Using Prepared Sand Float Finish—add water only.
- 3-2. Base coats must be set and hard, about 3/4 dry, before applying finish coat.
- 3-3. Finish shall be applied with trowel, scratch in thin coat, then double back with second coat to bring to even, level surface free from surface marks. Use float (carpet) (felt) or (cork) to bring to final, even, granular finish. Apply water

sparingly with brush, being sure to complete floating before plaster has set. Avoid joinings by working top and bottom of wall at same time. Finish coat shall not be less than $\frac{1}{10}$ or more than $\frac{1}{10}$ in. thick.

4. Keene's Cement Lime Trowel Finish

- 4-1. Finish Coat—Shall consist of three (3) parts of Keene's Cement to one (1) part of lime putty by volume (or 100 lbs. dry Keene's Cement to 40 lbs. lime putty).
- 4-2. Base coats must be set and hard but not thoroughly dry before applying finish coat. If base coat is dry, spray slightly with water but do not soak.
- 4–3. Apply thin coat well scratched in, then double back and fill out to even surface. Allow to draw for a few minutes, then trowel and brush to a smooth finish, using as little water as possible while troweling. Thickness shall not be less than $\frac{1}{16}$ in. or more than $\frac{1}{16}$ in.
- 4-4. Imitation Tile—Marked off for imitation tile, the thickness shall depend on depth of scoring but in no case should be less than $\frac{1}{16}$ in. at bottom of scoring.
- 4-5. Polished Surface—After cement is dry, polish with a cloth to a high polish.

5. Texture Finish (Gold Bond Color Texture)

Over Gypsum Base Coats—Where used over two-coat gypsum plaster, walls should be floated before application of Color Texture to increase yardage and to insure more uniform thickness. Dry walls may be sized or dampened to increase yardage and give longer time for texturing.

Over Lime Finish—It is not good practice to apply Color Texture or any other decorative material over fresh lime putty finish, sooner than four months after application of the lime putty. If, however, it is desirable that the walls be decorated at once, Gold Bond Color Texture can be applied as soon as the lime putty is thoroughly set and dry. The lime must not be sized.

Color Texture may be applied over old lime putty walls with or without sizing. Follow detailed instructions packed in every carton,

SECTION 7

ORNAMENTAL PLASTER WORK

1. Cornices and Mouldings

1–1. Cornices and Mouldings of size or girth required should be specified, shown on drawings or noted in schedule of finishes.

2. Ornamental or Enriched Work

2-1. Ornamental or enriched work should also be shown on details, character desired described in specifications and noted on schedule of finishes.

3. Models

- 3-1. All ornamental work shall be executed from models approved by the Architect.
- 3–2. Models shall be furnished under a cash allowance of () which shall be included by this Contractor in his contract. Models shall be executed by a modeler (selected by) (satisfactory to) the Architect, and the work shall be executed under the direction of the Architect. Models shall be delivered by the modeler at his studio, ready packed, to this Contractor who shall pay all charges of transportation.
- 3-3. Models shall be furnished to this Contractor without cost to him by the Owner. Models shall have been prepared under the direction of the Owner.

4. Materials

- 4-1. Materials shall be Gold Bond Moulding Plaster for run mouldings and ornamental work.
- 4-1-1. Mixing—Add water only to Gold Bond Moulding Plaster.

5. Run Work

- 5-1. Run Work shall be run full, true and even in accordance with Architect's details. All curved work shall be run true to
- 5-1-1. Templates—Shall be of metal, clean cut and accurate with the Architect's full-size details.

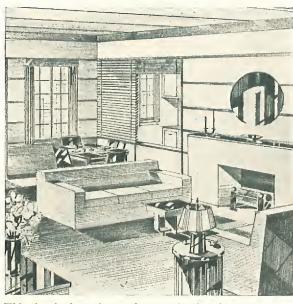
6. Cast Work

- 6-1. All enriched work and ornamental work which cannot be run in place on the job, shall be of best quality, cast from gelatine moulds. All work shall be properly backed, cast solid or hollow, and properly reinforced with wood or iron, and shall be securely stuck and held in place with copper wire.
- 6-1-1. Cast ornamental coffered ceilings shall be cast in sections and reinforced so that sections can be secured to hangers or other support from ceiling slabs, etc.
- 6-1-2. All cast work shall be set true in surface and alignment and any rough spots shall be finished and sand papered and left perfect, ready for decoration.

GOLD BOND GYPSUM WALLBOARD

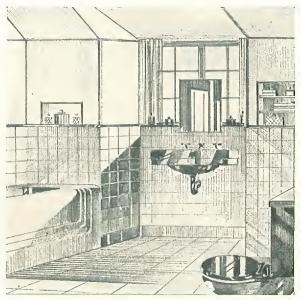
For New Work or Quick Modernizing

Rooms May Be Paneled or the Seams May Be Concealed



This sketch shows how a few panels of Gold Bond Wall-board will transform a large, ugly room into a smart, comfortable apartment and double its rental value.

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Old bathrooms can be quickly modernized with Gold Bond at surprisingly low cost. Any carpenter can do the work in a few hours with little muss or inconvenience.



You wouldn't recognize this as a wallboard room because the joints are invisible . . . treated with Gold Bond Perforated Tape Joint System. For the decoration, Color Texture in a delicate pastel tint.



GOLD BOND FIBRE INSULATION BOARD PLANK, TILE, SHEATHING, ROOF BOARDS

GOLD BOND GYPSUM WALLBOARD

The Pioneer Lightweight Gypsum Wallboard, Made Under Exclusive Patents . . . Fireproof, Non-Warping Three Finishes: Plain, Tile, Imitation Wood-Grain

GYPSUM wallboard in its present highly efficient form is relatively a new-comer to the building products field. Prior to 1925, when NATIONAL GYPSUM COMPANY was organized, gypsum boards weighed about 2000 pounds per thousand square feet. They were brittle, breaking easily, and chipping along the nailing edge. Because of their excessive weight and fragility, their use was limited.

Gold Bond Changes Industry

Then in 1925, came Gold Bond with patents covering a revolutionary type of gypsum wallboard. The new product weighed 1700 pounds against the old 2000 pound weight . . . it was much stronger . . . its millions of tiny air cells gave insulation never before dreamed of in gypsum wallboard. Overnight gypsum wallboard became a practical building material, with a hundred-and-one uses in remodeling homes, stores, factories, offices, garages, and all types of building.

New Patents for Lighter Board

Years of pioneering followed, during which time Gold Bond continued to improve the quality of its board. Gold Bond engineers were unceasingly at work in an endeavor to further lighten and strengthen gypsum wallboard. They succeeded. And in April, 1934, United States patent numbers 1,932,956 and 1,946,077 were issued covering the manufacture of a gypsum wallboard of extremely light weight plus super-strength.

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This important improvement was brought about through a unique method of greatly increasing the number of tiny, dead air cells in the gypsum core. The new board, although lighter in weight, is stronger, more flexible or resilient, higher in insulation value. And it may be nailed close to the edge without splitting.

Exceeds Federal and ASTM Specifications

The National Gypsum Company guarantees its gypsum wall board products to exceed by 100% the strength requirements of Federal Specifications SS-W-51 A and ASTM specifications C-36 for gypsum wallboard, and to meet all other requirements of these specifications.

New Products Introduced

Following the perfection of standard Gold Bond Gypsum Wallboard, Gold Bond Gypsum Tile was announced, followed by Gold Bond Gypsum Wallboard with Aluminum Foil Insulation and Gold Bond Grain Board, which in texture and grain gives the effect of wood paneling at a great saving in cost. The latter product is made in three distinctive finishes—Gumwood, Mahogany and Knotty Pine and comes already lacquered.

In addition to the standard board with Square Edge as pictured below, Gold Bond Board is also made with Recessed Edge and T. and G. Edge as shown on the preceding page. There are three thicknesses: 1/4 inch, 3/8 inch and 1/2 inch.

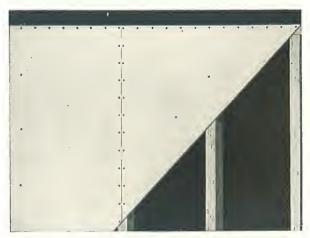
For Gold Bond Gypsum Wallboard and Lath with Aluminum Foil Insulation, See Page 79.



A panel of % in. Gold Bond Gypsum Wallboard showing the distinctive edge label

Panels Applied Vertically

1/4 or 3/8-in. Gold Bond Gypsum Wallboard, should be applied vertically or parallel with studs. Use headers (extra 2 x 4's) where necessary to provide a solid backing at all edges.



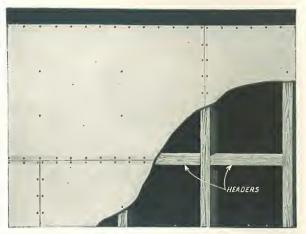
Nails at edges are spaced 3 in. apart and 3/8 in. in from edge of panel. Center nails (to the intermediate studs) are spaced 6 in. apart on ceilings; 9 in. apart on walls.

Fireproof . . . Won't Warp, Expand or Contract

Gold Bond Gypsum Wallboard is fireproof and provides valuable protection for wood framing members. The core is solid gypsum rock. Tests prove the fire resistance of Gold Bond is unexcelled by any other gypsum wallboard. Panels are unaffected by dampness or climatic changes and will not warp or buckle because there is no expansion or contraction.

Panels Applied Horizontally

1/2-in. Gold Bond Gypsum Wallboard with Recessed Edge or T. & G. Edge should be applied horizontally or crosswise to studs, which provides greater structural strength. With T. & G. Board, the groove edge should be down.



Work from ceiling to floor, applying the top panel first. Use headers (extra 2 x 4's) where necessary to provide a firm backing at all edges. Stagger vertical joints.

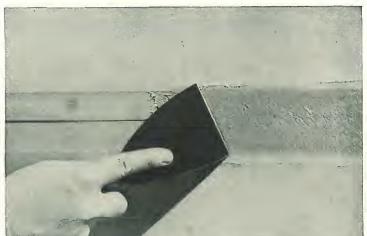
Sizes and Thicknesses

Thickness	Width	Length		
1/4 in. Square Edge 3/8 in. Square Edge 1/2 in. Square Edge	48 in. 48 in. 48 in.	4, 5, 6, 7, 8, 9, 10, 11, 12 ft. 4, 5, 6, 7, 8, 9, 10, 11, 12 ft. 4, 5, 6, 7, 8, 9, 10, 11, 12 ft.		
3/8 in. Recessed Edge 1/2 in. Recessed Edge 1/2 in. T. & G. Edge	48 in. 36 and 48 in. 48 in.	8, 9, 10 ft. 8, 9, 10 ft. 8, 9, 10 ft.		



Another charming room . . . Gold Bond Grain Board for the walls, Standard Gold Bond Gypsum Board for the ceiling decorated with Gold Bond Color Texture,

A Simplified Method of Concealing Joints of Gypsum Wallboard for a Smooth, Seamless Wall, Ready for Decoration

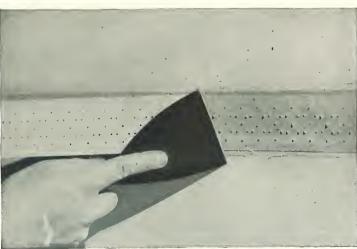


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1. Filling the channel with cementing plaster



2. Pressing the perforated tape into place



3. Smoothing surface and feathering out edges

Gold Bond Perforated Tape Joint System is for use with any style of Gold Bond Gypsum Wallboard, square edge, tongue and groove edge or recessed edge. Comprises the use of a fibre perforated tape in conjunction with a smooth-working cementing plaster.

This System works particularly well with recessed edge board because the recess along the edge of the panel forms a perfect channel for the tape and cement. The pictures at the left show the easy steps in applying. If normal care is used, the panel intersections can be completely concealed prior to painting, papering or texturing.

Application

Fill the hollow or channel with the cement as illustrated in Step No. 1, using a 5-in. putty knife. The cement should extend $\frac{1}{2}$ in. beyond the edge of the channel. Apply the perforated tape immediately, directly over the cement and press it into place with the putty knife which automatically forces some of the cement through the perforations, as shown in Step No. 2.

The cement forced through the perforations should be smoothed over with putty knife and allowed to dry. Next, apply another thin coating of cement so that the tape will be completely hidden. Feather out edges as smoothly as possible and let dry thoroughly. Intermediate nail heads should also be carefully filled with cement and brought flush with the surface of the board. The last operation is sanding the treated joints and the filled nail heads with coarse and then fine sandpaper.

Coverage

Standard size carton contains one 250-ft. roll of Perforated Tape and cementing plaster—enough for 550 to 650 sq. ft. of Gypsum Wallboard.

Small size carton contains one 25-ft, roll of Perforated Tape and cementing plaster—enough for 55 to 65 ft, of Gypsum Wallboard,

GOLD BOND FINISHER

For an Inexpensive, Quick Job

Gold Bond Finisher is mixed with water to a putty consistency and applied with putty knife between the panel intersections and over the exposed nailheads. When thoroughly dry, is sandpapered smooth. Supplied in 5 lb. packages. . . Of course, it isn't possible to do as good a job with Finisher as with Perforated Tape Joint System nor will the joints be as strong as when reinforced with the perforated tape and special cementing plaster.

STANDARD SPECIFICATIONS

FOR APPLICATION OF GOLD BOND GYPSUM WALLBOARD

1. Scope of Work

List all walls, ceilings and other surfaces which are to be covered with Gold Bond Gypsum Wallboard.

2. Framing

- 2-1. Framing of all studs and joists shall be 16 in. on center, unless for bearing partitions which are 12 in. on center, and shall follow general good practice.
- 2–2. Headers of 2 x 4 in. shall be provided in ceilings and wherever else required to provide proper nailing for all ends of Gold Bond Wallboard . . . also between studs for baseboards, wainscot, or other finish, and for furring to take wood beams, cornices, etc.
- 2–3. For old plaster ceilings, nail 1 x 2 in. furring strips over the plaster, to provide proper nailing for ends and intermediate support of boards, using 8d nails.

Material

- 3-1. Wallboard—Where wallboard is referred to hereinafter, it shall mean Gold Bond Gypsum Wallboard as manufactured by National Gypsum Company, Buffalo, N. Y.
- 3–2. Gold Bond Wallboard shall be ($1\frac{1}{4}$ in.) ($3\frac{1}{8}$ in.) thick in lengths to run full height on walls from floor to ceiling and to headers on ceilings.
- Note: Where $\frac{1}{2}$ -in. Gold Bond Wallboard with T. & G. Edge or Recessed Edge is used, it shall be applied at right angles to studs and joists.
- 3–3. Nails for $\frac{1}{4}$ in, and $\frac{3}{8}$ in. Gold Bond Wallboard shall be 3d, blued nails $\frac{1}{8}$ in. long for use over studs, joists or beams. For $\frac{1}{2}$ -in, board use 4d nails $\frac{1}{8}$ in.
- 3-4. For directly over old plaster use 6d cement coated common nails 17/8 in. long.
- 3-5. Where ceiling has floor above use 4d cement coated nails, $1\frac{3}{8}$ in, long for ceiling wallboard.

4. Handling and Preparation

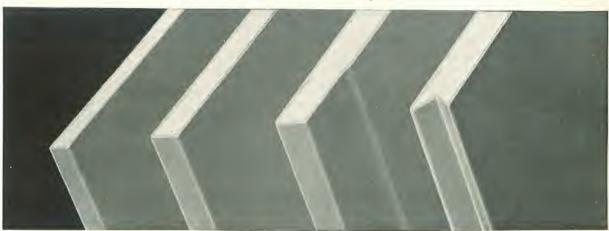
- 4-1. Receiving Material—Wallboard shall be piled flat on floors with reverse side up except first board which shall be turned down.
- Note: (Wallboard shall not be delivered on the job until doors and windows are in place.)
- 4-2. Handling—Wallboard shall be handled with long edge up.

4–3. Sawing and Cutting—All required cutting of wallboard shall be done with a saw unless joints will be covered by trim. Sawing shall be done with sharp handsaw with back of board placed down and supported close to sawed edge. Other cuts may be made by scoring with sharp edge of hatchet or chisel and breaking over straight edge. Bevel the face side of cut edges and mill cut end with coarse sand paper so that no rough paper edges will remain, unless covered by trim. Recut the ends of all wallboards which have been damaged by handling.

5. Application

- 5–1. Inspection—Before applying wallboard see that all edges and ends are perfect and all ends and cut edges are face beveled and that faces of boards are undamaged.
- 5–2. Wallboard, with back toward studs, shall be applied directly to studs, beams, etc. Horizontal joints shall be made only over framed headers.
- Note: All closed edges of panels shall be butted together. Sawed edges (with gypsum core exposed) or mill-cut ends shall be spaced $\frac{1}{2}$ 8 in. apart.
- 5-3. Nailing—Wallboards shall be nailed first to intermediate studs or beams and nails driven straight in, with heads set slightly below the surface without using nail set. Nails shall be spaced 9 in, apart on intermediate studs of walls and 6 in, apart on ceilings. Nails shall be spaced 3 in, apart and 3½ in, back from all edges and ends. Boards shall first be tacked on edge to hold to adjoining edge and then shall be nailed first to each intermediate support working from center toward ends and finally sides and ends shall be nailed, with nails opposite each other on edges.
- 5-4. Ceilings—Ceiling boards shall be erected first and length of board shall be at right angle to ceiling beams. Panels shall be in one piece as far as possible but if joints occur they shall be broken unless covered with strips or wood beams.
- 5-5. Walls—Wallboard shall be applied in full lengths from floor to ceiling and parallel to framing, (½-in, Wallboard with Recessed Edge or T. & G. Edge shall be applied at right angles to framing with groove edge down and the full length panels shall extend above and below openings instead of "piecing." This adds greater structural strength.) Vertical joints on opposite sides of partitions shall not come opposite each other on the same stud.

Showing the Three Edges in which Gold Bond Gypsum Wallboard is made



Square Edge

Square Edge

Recessed Edge

T. & G. Edge

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GOLD BOND GRAIN BOARD

All the Richness of Expensive Wood Paneling at a Fraction of the Cost . . . Three Finishes: Gumwood, Mahogany, Knotty Pine

Gold Bond Grain Board is standard gypsum board with an imitation wood grain surface that defies detection upon casual inspection. Made in three distinctive finishes—Gumwood, Mahogany and Knotty Pine.

In addition to its rich-looking grain surface, Gold Bond offers these important advantages over real wood: the solid gypsum core is fireproof and unaffected by dampness. Won't expand, contract, warp or peel. Saws like lumber and may be nailed without splitting. Installations made years ago, show not the slightest tendency toward fading.

Where Used

Millions of feet of Gold Bond Grain Board have been used in offices, stores, restaurants, taverns, living rooms and dining rooms in private homes, window backgrounds . . . in fact, wherever an impressive wood panel effect is desired.

For Summer Cottages and Recreation Rooms

The low cost of Gold Bond Grain Board—only a fraction as much as real wood—permits its use for even low priced summer cottages and recreation rooms. Besides offering a durable interior finish that is very unusual and beautiful, the cellular gypsum core provides effective insulation so much desired in summer homes. For basement recreation rooms, Gold Bond is strongly recommended . . . it is not affected by cellar dampness and won't warp.

Supplied With Lacquer Finish

Made with a protective lacquer finish which can easily be cleaned with a damp cloth. No further decorative treatment is necessary, but like real wood, additional finishing will bring out its full richness. The simple instructions for further decorative treatment are given on the next page.



Sturdy panels of Gold Bond Grain Board are nailed to the wood framing or, if modernizing, right over the old material. Old fashioned rooms with cracked walls and ceilings can be quickly converted into attractive up-to-the-minute interiors, and at surprisingly low cost.

Thickness and Sizes

Standard thickness, $\frac{1}{2}$ in. (Special thickness, $\frac{1}{4}$ and $\frac{1}{2}$ in.) Gumwood and Mahogany panels are made 32 in. wide and 8, 9, and 10 ft. long. Knotty Pine, 48 in. wide and 8, 9, and 10 ft. long. All panels are carefully wrapped, two to a bundle.



A beautiful room, delightfully different . . . Gold Bond Knotty Pine.

APPLICATION INSTRUCTIONS

Nailing

Gumwood and Mahogany (32 In. Wide)—Space studs 16 in. on centers, using headers (extra 2x4's) where necessary to provide firm nailing surface behind the four edges of each panel. Nails should be spaced 3 in. apart and $\frac{3}{8}$ in. in from edge of panel. On sidewalls only, it is not necessary to nail the center of the panel to the intermediate stud—this middle stud merely serving as a brace or support behind the center of the panel. But the panels together. Nail along the four edges, beginning at the center and working towards the top and bottom.

Knotty Pine (48 In. Wide)—Follow above procedure except the panels must be nailed to the intermediate or middle studs as well as at the four edges. Do the intermediate nailing first beginning at the center of the panel and working towards the top and bottom. Use 4d finishing nails for the intermediate nailing driven at a 45 degree angle. Use care not to mark the board with the hammer. Intermediate nails should be driven just a trifle below the surface so the heads can be concealed with linseed oil putty mixed with stain.

Nails—For new work, use 3d cement coated flat-head nails 11/8 in. long around the edges. Over old material use 6d cement coated flat-head nails 11/8 in. long. Drive the nails "home" but do not use a nail set. For intermediate nailing, use 4d finishing nails.

Paneling

Gold Bond Grain Board may be used with or without decorative mouldings over the joints. To obtain a well balanced paneled effect, it is well to prepare a plan in advance for the carpenter to follow.

Or if a paneled effect is not desired, the Grain Board panels can be butted together so that the joints are hardly visible. For the latter treatment, finishing nails should be used around the edges instead of flat-head nails and the nailheads concealed with linseed oil putty mixed with stain.

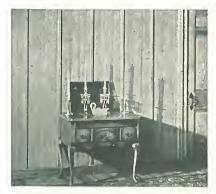
Decoration

As Gold Bond Grain Board comes already lacquered, no further decoration is needed. May be cleaned by going over it lightly with a damp cloth. Like real wood, additional finishing will, of course, improve the richness. Always apply a priming coat of clear white shellac. Follow with a coat of clear (flat or dull) varnish or an emulsified floor wax. The dull varnish finish is particularly recommended. Rub down lightly between coats with steel wool.



A Close-up Showing the Distinctive Wood Graining

Three Home Views Created by Joseph Platt of Delineator Showing Treatments Obtainable with Gold Bond Grain Board



Dining Room



Sun Room



Recreation Room

GOLD BOND GYPSUM SHEATHING

For Use Under Wood Siding, Clapboards, Brick-Veneer, Stone or Stucco . . . Full 1/2-inch Thick . . . Fireproof Solid Gypsum Core Real Fire Protection for the Wood Frame Home

Description

GOLD BOND GYPSUM SHEATHING is a sturdy, knotless sheathing material, full ½ in. thick. The core is solid gypsum rock, encased in heavy, waterproofed building paper with tongue and groove edges. Is rapidly becoming the leading sheathing material because it offers these distinct advantages:

Fireproof Water-resistant Windproof Helps insulate Adds structural strength Won't warp, expand or contract No building paper required Won't absorb moisture and freeze Saws like lumber

Costs 1ess . . . Saves labor

Gold Bond Gypsum Sheathing is absolutely non-inflammable and incombustible. It insures permanent fire protection for wood frame houses at no extra cost. Solid gypsum core resists water effectively and additional protection is provided by the heavy, waterproofed paper on both sides.

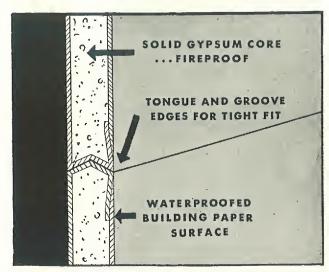
Easier to Apply

The large sturdy panels go up in no time-an 8-ft, length covering a span of 6 studs spaced 16 in. on centers. Use 101/2-gauge flat head roofing nails 13/4 in. long.

Contractors report a further saving can be effected in applying the panels, by working from the inside of the house, thereby eliminating the usual outside scaffolding.



Large, Sturdy Panels of Gold Bond Sheathing Go Up in No Time, an 8-Ft. Length Covering a Span of Six Studs Spaced 16 In. on Centers. No Random Lengths and No Waste. Building Paper Is Not Required.



Gold Bond Sheathing, Full ½-In. Thick, with Core of Solid Gypsum Rock. Long Edges Are Tongue and Groove, Which Make Snug Windproof Joints. Ends Are Perfectly Square.

Won't Warp or Buckle

There is positively no movement in the panels regardless of climatic changes or extreme weather conditions. No possibility of shrinkage, leaving open gaps along the joints.

Windproof . . . Helps Insulate

The infiltration of hot or cold air is effectively stopped by Gold Bond Gypsum Sheathing. This can easily be appreciated when one considers:

First-The wide panels (2 ft.) greatly reduce the number of joints and these are permanently snug because of the tight-fitting tongue and groove edges.

Second-The panels are knotless. No danger of knots falling out after application, leaving holes for wind to enter.

Size, Thickness, Weight

Sizes: 2 ft. x 8 ft., 2 ft. x 6 ft. 8 in.

Thickness: Full 1/2 inch.

Weight: Approx. 1900 lbs. per M sq. ft.

Edges {Long edges T. and G. Short edges square

One thousand square feet actually covers one thousand square feet of surface. No random lengths and no waste.

GOLD BOND GYPSUM SHEATHING (Cont'd)

Adds Structural Strength

As indicated by the following chart, ½ inch Gold Bond Sheathing adds greater structural strength to a building than other sheathing materials applied horizontally or diagonally.

Comparative Structural Strength

GYPSUM SHEATHING vs. WOOD SHEATHING
Tests Made at Armour Institute of Technology
(Test Panels 4'x8' . . . made of yellow pine 2x4's
spaced 16" on centers)

LOAD IN		E SHEATHING x 8"	GYPSUM SHEATHING	
POUNDS	Applied Diagonally	Applied Horizontally	Applied Horizontally	
100 800 2000 2800 3600 4000 Load at	Deflection in Inches .01 .10 .29 .54 1.07	Deflection in Inches .10 2.56 10.94 11.72	Deflection in Inches .00 .07 .20 .32 .54 .84	
end of test	3925 lbs.	3150 lbs.	4425 lbs.	



Builders everywhere are swinging over to this fireproof sheathing. Note the trim piles of Gold Bond in the foreground—absolutely uniform in size and thickness. No danger of "losing" them for kindling wood because they won't burn.

Specifications

(1) Sheathing and Roof Boards—Sheathing and Roof Boards shall be Gold Bond Gypsum Sheathing as manufactured by National Gypsum Company, ½ in. thick, 2 ft. wide, 8 ft. long (or 6 ft. 8 in. long). Nails shall be 1¾ in. long, No. 10½ gauge, galvanized flat head roofing nails. Protect panels from the weather until ready for use.

(2) Application—Apply panels of Gold Bond Sheathing directly to supports with lengths at right angles to the studding and rafters with groove edge down and trade-mark in.

Wherever the square ends shall be butted together a support shall be provided and the tongue and groove sides shall be fitted tightly together. Stagger vertical joints.

Panels shall be nailed to each intermediate support and at the ends, the nails to be spaced 4 in. apart and $\frac{3}{2}$ in. in from edge

at the ends. (49 nails to each 2x8 ft, panel.) Building paper shall not be used over Gold Bond Sheathing.

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(3) Siding—Apply siding at right angles to studding, directly over Gold Bond Sheathing. Siding shall be nailed into the wood supports (not to the sheathing) and nails shall be long enough to go through the sheathing and into the studs.

(4) Shingles—Apply 1x2 in. wood furring strips over Gold Bond Sheathing at right angles to studding, to take shingle weathering specified. Furring strips to be nailed securely through the sheathing to the studding.

(5) Stucco—Use 2.5 Gold Bond Self-Furring Diamond Mesh Lath Galvanized over the sheathing. Nail securely through sheathing to the wood framing.

(6) Stone or Brick—Wall ties shall be nailed securely through the sheathing to the wood supports.

Showing Gold Bond Gypsum Sheathing, Used with Various Types of Exterior Finish.





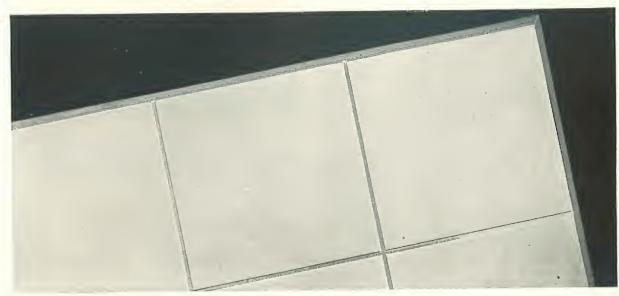


GOLD BOND GYPSUM TILE BOARD

For Kitchens, Baths, Restaurants and Stores

Large, Easily Applied Panels with Deep, Clean-cut Tile Indentations

Costs Only a Fraction as Much as Ceramic Tile



Section of Gold Bond Tile Board Showing Embossed Tile Effect. Actual Size of Tile is 4 Inches Square

GOLD BOND TILE BOARD is made under the same processes as Gold Bond Gypsum Wallboard except that the surface is indented to form tile, four inches square. Is fireproof; will not crack, expand or contract and takes a beautiful enameled finish.

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Gold Bond Tile Board is ideal for new and modernizing work and costs but a fraction as much as ceramic tile. Saws like lumber and can be applied quickly with little muss or dirt.



An Ideal Combination—Gold Bond Tile Board for the Wainscot and Standard Gold Bond Board decorated with Gold Bond Color Texture or Craftex for the upper walls and ceilings . . . Inexpensive . . . Permanent . . . Washable.

Thickness and Sizes

Panels are 3/8 in. thick and supplied 4 ft. wide and 6, 7, 8, 9 and 10 ft. long. In kitchens and baths of average size, one panel will extend the full length of the wall with no joints except at the corners where a quarter round mould is generally used.

Application and Decoration

Nail panels directly to wall studs or if remodeling, apply over present material. Use flat head nails along the edges, spaced 3 in. apart and $\frac{3}{6}$ in. in from edge. Nails should be at least $\frac{1}{6}$ in. long or approximately 2 in. if used over old material. Panels must also be nailed to intermediate studs with finishing nails, these nails to be spaced 8 in. apart (or every two tiles from the top to the bottom of panel). Drive nails "home" but do not use a nail set.

Apply a priming coat of varnish size. Then a coat of paint, followed with a second coat of paint or enamel. Rub down between coats with fine sandpaper or steel wool.

Contrasting Colored Indentations

Give surface a coat of flat paint or enamel undercoating of the finished color desired for the indentations. Then apply a coat of enamel in some contrasting color, brushed on very thin. When enamel has set, wipe out the joints with any narrow tool such as a ruler, match, or ordinary meat skewer. It is advisable to stretch a piece of cloth over the end of the tool to absorb the enamel that is wiped out of the indentations, taking care to keep the cloth clean. This brings out the color of the base coat or undercoating at the indentations and produces an attractive two-color job.

GOLD BOND HARDBOARDS

Large Panels of Knotless, Grainless, Manufactured Lumber With or Without Tile Indentations . . . Five Thicknesses, Various Finishes Supplied in Standard Brown Color, also Black and Green

GOLD BOND HARDBOARD is an all-wood product made of fibres obtained by exploding wood chips by high steam pressure. Wood possesses a natural, powerful cementing material known as lignin. The exploded fibres and lignin are thoroughly felted together, and when placed in heated hydraulic presses are cemented together by the perfect adhesive present in wood itself. No foreign binder or chemical is used.

Gold Bond Hardboard will not crack, split or splinter. Is highly compressed and extremely dense, hard and rigid. Saws like lumber; resists moisture and shows little expansion or con-

Used as a wall and ceiling material, for partitions, articles of furniture, table and counter tops, for all kinds of panel work, signs, cut-outs, window-backs, etc.

Surface Finish, Color and Types

One side is smooth and the other has a uniform texture. Either may be used as the face side. The natural color is a rich brown, which is very pleasing in itself, or any decoration may be used. Simply size with shellac or varnish size and decorate with paint, enamel, lacquer or texture.

Gold Bond Hardboard is available in both tempered and untempered types. The tempered board is put through a special process which makes it even more dense, and harder than untempered board.

Gold Bond Hardboard Tile

Same as Tempered Hardboard except the surface has deep, clean-cut indentations to form tile, four inches square. Recommended for use in kitchens and baths, in stores, restaurants, etc. Because of its exceedingly hard surface, will stand plenty of wear and abuse,

Gold Bond Panel Board

An all-wood board, somewhat similar to Hardboard but not as dense and not nearly as hard. Incidentally, it costs about half as much. Supplied in two grades: Standard Panel Board and De Luxe Panel Board. The latter product is specially treated and has a denser and harder surface.

Application

Nail panels to wall studs and ceiling joists, or if remodeling, the panels may be applied over the present material. The center nailing over the intermediate studs should be done first and then the edges. Use finishing nails for the center nailing and regular flat head nails for the edges. Panels should be applied moderately close together but not forced into place.

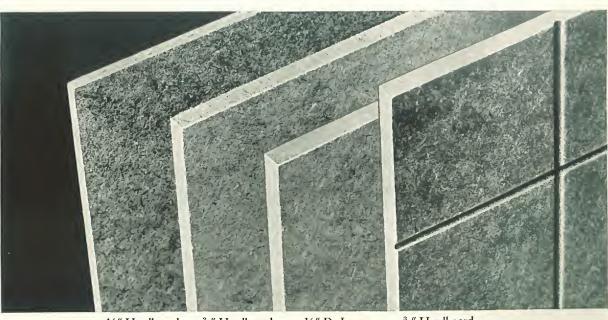
Thicknesses, Sizes, Weights, Bundling Data

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	Sizes ·	Weight per M sq. ft.		No. Panels
Type and Thickness		Untempered	Tempered	per
10" Hardboard	4'x12' only	610 lbs.	650 lbs.	8
1/8" Hardboard	4'x6', 8', 9', 10', 12' 4'x6', 8', 9', 10', 12'	760 lbs.	790 lbs.	
16" Hardboard	4'x6', 8', 9', 10', 12'	1040 lbs.	1100 lbs.	6
1/4" Hardboard	4'x12' only	1370 lbs.	1400 lbs.	3
16" Hardboard	4'x12' only	1710 lbs.	1630 lbs.	3
1/8" Hardboard Tile	4'x12' only		830 lbs.	6
3" Hardboard Tile	4'x12' only		1130 lbs.	5
1/4" Panel Board	4'x5', 6', 7', 8', 9'			
	10', 12'	860 lbs.	1	6
1/4" DeLuxe Panel Bd.	4'x6', 8', 9', 10', 12'	1060 lbs.		6

The above table covers only standard brown cotor board. . . . Black and Green Tempered Hardboard is made 1/10", ½", ¾", ¾", ¼", ¼" thick and in one size 4' x 12' . . . Hardboard Flooring is made in two sizes, 11¾" x 23½" and 23½" x 47".

Note: "Shorts," used extensively for manufacturing purposes, are available in ½" and ¾" Hardboards and ½" Panel Board and De Luxe Panel Board at lower prices. Sizes 4' x 2', 3' and 4'. . . . Packed 10 pcs. to bdle.



1/8" Hardboard Tempered

3 " Hardboard Untempered

14" De Luxe Panel Board

3" Hardboard

A CHAIN OF 15 MAMMOTH GOLD BOND PLANTS INSURES QUICK SERVICE TO 10,000 DEALERS

Uniform High Quality Is Insured by Constant Supervision from the Time the Raw Materials Are Taken from the Mines Until the Finished Products Are Loaded in the Cars.



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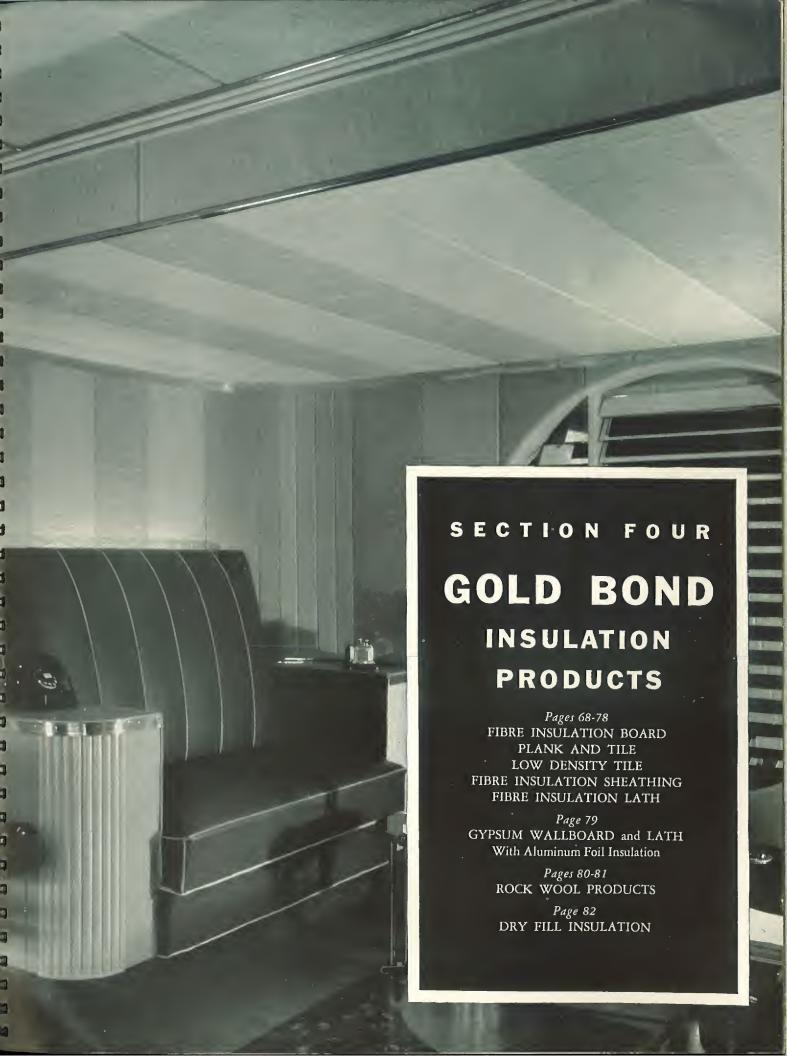
Lime Mine at York, Pa. This limestone is exceptionally high in calcium oxide content.



Loading methods approved by the carrier insure contents reaching customers in perfect condition.



Clarence Center Plant Located in the Heart of Western New York's Rich Gypsum Deposit.



NEW BEAUTY FOR ALL KINDS OF INTERIORS WITH GOLD BOND INSULATION BOARD

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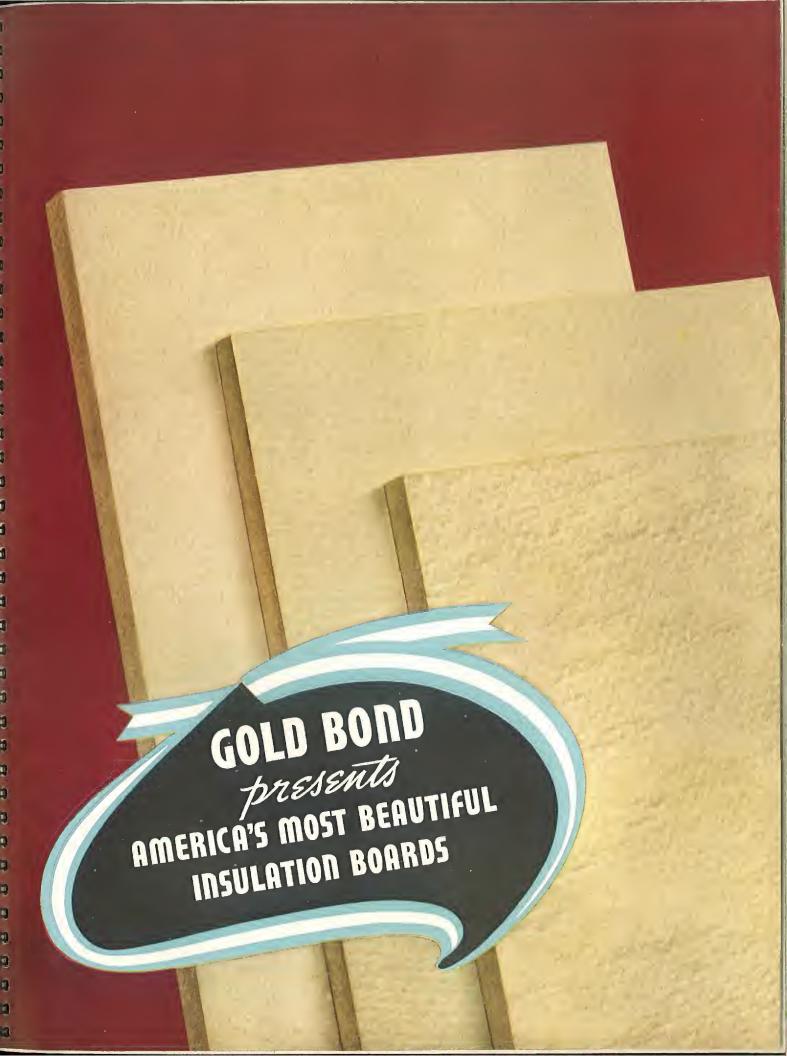
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Congress Cafe, Lima, Ohio. . . A Modernized Restaurant, Smart and Inviting. Here, the Ceiling of Gold Bond Low Density Insulation Tile Serves a Triple Purpose . . Decorates . . Quiets Noise Like Magic . . Insulates. Owner Reports the Insulated Ceiling Cuts the Cost of Air-Cooling Almost One-Third.



Marlow Theatre, Herrin, Ill. . . A black and white picture doesn't do justice to these charming walls and ceiling of Gold Bond Insulation Board and Tile. And there is the practical side too . . both the heating and cooling systems will function better and at reduced cost in this insulated building.



Gold Bond sets new standards



• With a few panels of Gold Bond Insulation Board, you ean turn an ordinary bedroom into a stylish modern interior like this. Note that here the board is applied horizontally and grooved—a method favored by many leading designers. On the ceiling, Gold Bond Insulation Tile.

• Cheerful surroundings help put ensumers in the buying mood. That's why so many store owners are modernizing with colorful Gold Bond Insulation Board. Besides decorating, it quiets noise and during the summer keeps the store decidedly cooler . . . all at one low cost.









Beauty Strength STANDARD BOARD IN CREAM COLOR TEXTURE SANDED FINE MAT

OLD BOND brings you a new and basically improved insulation board . . . the most beautiful material of its kind America has ever seen.

Made by secret "Multi-Seal" process, this unique board combines the fibres of three selected "live" woods. Cottonwood for strength. Bay for formation and appearance. Pine for permanence. No makeshift or waste materials are used.

The fibres are moisture-proofed, dyed and blended to form a board with rich, permanent color throughout its entire structure . . . a board with new high resistance to expansion and warp-

ing . . . a board that brings lifelong beauty to any room.

DISTINCTIVE NEW COLORS AND SURFACE FINISHES

You ean have Plank, Tile or Panel effects with three handsome surface finishes to choose

from . . . Fine Mat, Texture or Sanded. In addition to standard Cream Color, Tile and Plank come in Variegated Blends of Tan, Gray, Cream, Indian Buff.

Grouping these tints in random style, harmonious color combinations are created without further cost for decoration. Special grooved designs are easy, too. This hardy board cuts as clean as a whistle.

DOES 4 JOBS AT ONE LOW COST

Here's a material that decorates as it builds and insulates against summer heat and winter cold . . .

> absorbs sound and ents room-toroom noise . . . all at one low cost.

Do not fail to get *all* these wall and ceiling features when you build or remodel. Specify Gold Bond. Full description of the various boards on back page. Your dealer will gladly show you full size panels right from stock.

Unique New Insulation Board

Combines 3 'Live' Wood Fibres

Permanence PLANK TEXTURE FINISH VARIEGATED BLENDS PLANK SANDED FINISH VARIEGATED BLENDS • You can put lasting life and color into any type of room • One of the best advertisements a firm can have is a with Gold Bond Insulation Plank. Here you see it in texgood-looking, up-to-date office. This one has a ceiling of

• You can put lasting life and color into any type of room with Gold Bond Insulation Plank. Here you see it in texture finish, applied random width style in variegated blends. Standard Gold Bond Insulation Board below the chair rail and on the ceiling.

• One of the best advertisements a firm can have is a good-looking, up-to-date office. This one has a ceiling of Gold Bond Insulation Tile. Walls are texture surfaced Gold Bond Insulation Board panels with edges beveled and a decorative groove six inches in from the edge.





NEW GOLD BOND INSULATION BOARDS ...a complete line made by "MULTI-SEAL" process

STANDARD BOARD

Builds, decorates, insulates and deadens noise, all at one low cost. And does each job better due to the use of "live" wood fibres combined by Gold Bond's exclusive "Multi-Seal" Process. Choice of three standard surface finishes: Fine Mat, Sanded and Texture . . . all in Gream Color. Square edges . . . Thicknesses: 1/2", 3/4", 1", 11/2", 2" . . . Sizes: 4' x 4', 6', 7', 8', 9', 9'/2', 10', 12', 14', 16'.

TILE

Smart new wall and ceiling effects are easy to obtain with Gold Bond Insulation Tile. Can either be nailed in place or applied with Gold Bond Adhesive. Half-inch Tile is furnished in Fine Mat, Texture or Sanded Finish in Cream Color; and either Texture or Sanded Finish in Variegated Blends of Cream, Tan, Indian Buff and Gray. One-inch thickness in Fine Mat Finish, Cream Color only. Sizes: 12"x12", 12"x24", 16"x16", 16"x32", 16" x 48", 18" x 48", 24" x 24", 24" x 48". Beveled, V-Lap edges on four sides.

LOW DENSITY TILE

Here—at no extra cost—is a half-inch, low density, insulation tile with greater sound absorption than standard tile. Light in weight, porous, yet strong and wear-resisting. Brushed surface in cream color with beveled, butt edges. Supplied ½" thick in all the above standard tile sizes. Also 1" thick in 12" x 12", 12" x 24" and 16" x 16".

PLANK

Same beautiful surface finishes as Gold Bond Insulation Tile. Cream and Variegated Blends. Long sides have beveled V-Lap edges; ends square. Available with or without decorative bead. Widths: 6", 8", 10", 12", 16". Lengths: 6', 8', 9', 10', 12' . . . \frac{1}{2}" thick.

INSULATION LATH

Insulate as you build with this new, improved plaster base. Keeps your house more uniformly warm in winter, at lower fuel expense . . . and many degrees cooler in summer. The sturdy $18'' \times 48''$ panels are applied quicker than wood lath . . . add greater strength to the walls and ccilings. Interlocking edges beveled to insure extra plaster thickness at all joints. Made in $\frac{1}{2}''$, $\frac{3}{4}''$ or 1'' thickness. Supplied with metal reinforcing at no extra cost.

EXTERIOR SHEATHING

At no greater cost than old style wood sheathing, this rugged new board provides maximum insulation . . . plus tremendous bracing strength. Made from insulating wood fibres waterproofed by "Multi-Seal" process. Coated with asphalt for still further moisture protection. Then painted aluminum all over, to insulate by reflection against radiant heat. Supplied in two styles: Square edges on four sides, in sizes $4' \times 7'$, 8', $8\frac{1}{2}'$, 9', $9\frac{1}{2}'$, 10' and 12' . . . Shiplap edges on long sides and ends square, in one size, $2' \times 8'$.

ROOF BOARD

Since heat rises, roof insulation is mighty important from a fuel standpoint. So build with Gold Bond Roof Board. It saves its own cost in a short time, then pays dividends for the life of the building. Snpplied in $22'' \times 47''$ panels $\frac{1}{2}$ " thick with square edges. Thicknesses of 1'', $1\frac{1}{2}$ ", and 2'' come with either square edges or offset.

COLD STORAGE BOARD. Gold Bond makes Cold Storage Board in a full range of standard sizes and thicknesses. Ask your dealer for details.

ACCESSORIES

Full line of mouldings made of Gold Bond Insulation Board (Sanded Finish) including Decorative Strips, Corner Moulds, Frieze Bands and Ornaments . . . also Gold Bond Adhesive, a cement which bonds instantly.

NATIONAL GYPSUM COMPANY, BUFFALO, N. Y.

GOLD BOND LOW DENSITY INSULATION TILE

A Beautiful Fibre Insulation Tile with Greater Sound Absorption Than Standard Insulation Tile . . . at No Higher Cost. Full 1/2 in. Thick

A Three-in-one Product . . . Decorates . . . Quiets Noise . . . Insulates



ERE . . at no extra cost . . . is a special ½ inch tile with greater insulation and noise absorption than standard insulation tile of the same thickness. These plus advantages are brought about through a special fabrication process which produces a tile that is exceptionally porous, yet rigid and tough.

Gold Bond Low Density Tile is ideally suited for ceilings and Z

upper wall panels in restaurants, offices, cocktail lounges, bowling alleys, roller skating rinks; in fact for any type of building where

noise quieting is desirable.

Owners of restaurants and cafeterias have simply marveled at the vast difference a ceiling of this noise quieting tile will make. The slam, bang, clashing of dishes is hushed like magic, resulting in greater patronage as folks will really go out of their way to find a quiet eating place. Besides reducing noise, this low cost tile also decorates and insulates, all in one operation.

Easy Installation . . . Requires No Decoration

Gold Bond Low Density Tile is quickly applied with nails or Gold Bond Adhesive, generally right over the old material. On many store jobs, the work is done after hours without interruption to business. The attractive brushed surface in light cream color provides high light reflection and requires no further decoration. However, it special colors are desired the surface may be tion. However, if special colors are desired the surface may be decorated with Gold Bond Casein Paint or Sunflex with little or no sacrifice of sound absorption.

Size and Thickness

Made 1/2 in. thick in the following sizes which permit an endless number of patterns: 12×12 , 12×24 , 16×16 , 16×32 , 16×48 , 18×48 , 24×24 , 24×48 in. Brushed surface with beveled butt edges all around. Also made 1 in. thick in three sizes: 12×12 , 16×16 , 12×24 in.



Ugly, old-fashioned ceilings are modernized like magic with this low cost tile, built to hush noise. Many store jobs are done after hours without interruption to business.

GOLD BOND FIBRE INSULATION SHEATHING

"Weather-Conditions" New Homes Against Heat, Cold, Moisture
... Adds Tremendous Bracing Strength to Framing

ODERN standards of comfort demand a "weather-conditioned" house. A house that's cooler in summer, easier to heat in winter. A house more healthful to live in . . . with outside walls so tight and weatherproof that dampness can't seep through.

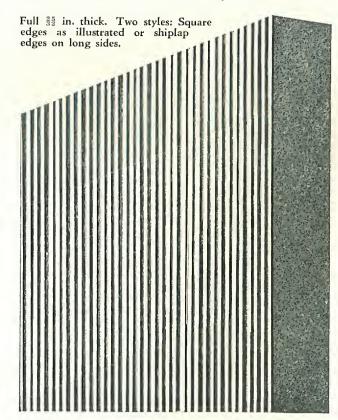
Insulation Sheathing provides this valuable extra protection at no higher cost than ordinary wood sheathing. It's just like getting insulation free!

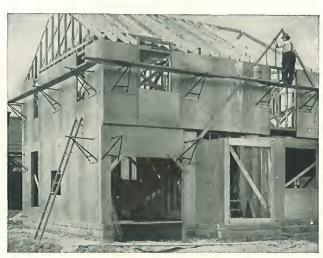
The Newest in Insulation Sheathing

Any Insulation Sheathing is a big improvement over wood sheathing but now . . . Gold Bond presents a new sheathing with *two* kinds of insulation:

- Insulation against conducted heat, made possible by millions of tiny air cells within the board. (Like a wool overcoat preventing escape of body heat.)
- (2) Reflective insulation to retard radiant heat. (Like the shiny inner walls of a thermos bottle.) Gold Bond accomplishes this with a generous coat of aluminum paint over the entire board.

With both these kinds of insulation you will find it far easier and less costly to keep your house at a warm, even temperature all winter long. And you'll get a real thrill out of cooler, more comfortable rooms no matter how hot it gets in summer.





The large sturdy panels of Gold Bond Sheathing are applied in less time and add structural strength to the building besides providing the most important improvement that can be built into new homes . . . Insulation.

Made of Sturdy Wood Fibre

Three "live" Southern Woods are used exclusively in the manufacture of Gold Bond Insulation Sheathing . . . Cottonwood for strength, Bay for formation, Pine for permanence. No deadwood, no waste materials are used. The fibres of all three woods are skillfully blended by Gold Bond's "Multi-Seal" process and fabricated into large sturdy panels with outstanding strength and insulation value. A heavy coating of asphalt "under the aluminum finish" provides additional protection against moisture.

Greater Structural Strength

Actual tests prove conclusively that Gold Bond Insulation Sheathing adds greater bracing strength to the structure than wood sheathing applied either horizontally or diagonally. The large panels save time in application and provide better wind stoppage because there are fewer joints. And no knot holes to permit infiltration of hot or cold air.

Sizes and Thicknesses

Gold Bond Fibre Insulation Sheathing is full § in. thick and supplied in two styles as follows:

Styles Square Edges on four sides	Sizes 4 ft. x 7, 8, 8½, 9, 9½, 10, 12 ft.	Wrapped 4 panels per bdle.
Shiplap Edges long sides. Ends square	One size, 2 ft. x 8 ft.	4 panels per bdle.

GOLD BOND INSULATION ROOF BOARDS

Gold Bond Insulation Roof Boards are also made from rugged "Multi-Seal" processed wood fibre and supplied in 22 x 47 in. panels ½ in. thick with square edges. Thicknesses of 1, 1½ and 2 in. are made with either square edges or offset.

GOLD BOND SHEATHING PROVIDES THE GREATEST IMPROVEMENT THAT CAN BE BUILT INTO NEW HOMES . . . Insulation for the life of the building

SPECIFICATIONS

Scope of Work

Gold Bond Insulation Sheathing shall be used in the following locations: (list)

Framing

Framing shall be spaced 16 inches on centers.

Material

1. Sheathing shall be as manufactured by National Gypsum Company and delivered on the job in original wrapping. Boards shall be 35 inch thick and selected from these sizes: 4 feet by 7, 8, 8½, 9, 9½, 10 or 12 feet with Square Edges, or 2 ft. x 8 ft. with Shiplap Edges.

2. Common 8d nails shall be used.

Application

1. All exterior walls as specified shall be covered with Gold Bond Insulation Sheathing.

- 2. Panels (4 ft. wide with square edges) shall be applied vertically with ribbed surface facing studs . . . Panels (2 ft. wide with Shiplap Edges) shall be applied at right angles to studding with ribbed surface facing studs.
- 3. Panels shall be nailed to intermediate studs first, with nails spaced 6 inches apart on centers, then along edges 3 inches apart and not less than 3/8 inch in from edge.
- 4. All joints shall center on framing members. Where necessary, headers shall be cut between framing members to provide a nailing base for all edges of sheathing panels.
- 5. Square Edge panels shall be spaced ½ inch apart at intersections, but brought into close contact with door and window frames . . . Shiplap Edge panels shall be fitted moderately close together. Ends spaced ½ inch apart.
 - 6. Boards shall cover completely from sills to plates.

Supplementary Provisions

Note: No building paper required except under exterior stucco.

- 1. WOOD SIDING—All joints shall center over framing members, and nails shall be long enough to pass through the sheathing and penetrate the stud at least 1 inch.
- 2. SHINGLES—Furring strips of 1 by 2-inch size shall be applied at right angles to framing members, over the Gold Bond Insulation Sheathing. Nails shall be long enough to penetrate at least 1 inch into framing.
- 3. METAL WORK—A 1-inch thick wood nailing base shall be applied over sheathing wherever metal gutter aprons, valleys, hips, ridges, saddles, etc., are to be placed.
- 4. EXTERIOR STUCCO—All head casings over windows and doors shall be flashed with metal. Sheathing shall be covered completely with waterproof building paper. Self-furring stucco bases, such as expanded metal lath, shall be applied directly over sheathing and building paper, so that nails or staples shall penetrate framing at least one inch. Non-furring stucco bases shall be nailed to 1 by 2-inch wood furring strips applied vertically to each stud over the sheathing and building paper.
- 5. MASONRY VENEER—Metal ties for masonry veneer shall be attached over sheathing with nails that penetrate framing members 1 inch or more. At least ½ inch space shall be left between sheathing and back of veneer.



These rugged 2' x 8' panels with Shiplap Edges sheath and insulate in one operation. No cracks, no knotholes, no random lengths, no waste.

GOLD BOND FIBRE INSULATION LATH

Does Three Jobs . . . Builds a Stronger Plaster Base Provides Effective Insulation . . . Cuts Room-to-Room Noise Supplied with or without Metal Reinforced Edge

BUILDING a new house these days without insulation is like designing a new car with two wheel brakes. It's years behind the times.

Today, prospective buyers of new homes demand insulation and for very good reasons. An insulated home means greater comfort the year round. Rooms are 10 to 15 degrees cooler in summer, easier to heat in winter with fuel bills cut as much as 40%. Insulation is not a luxury. It's real economy because it pays for itself many times over. And it steps up the value of the property so that it will always bring a higher resale price.

Gold Bond Fibre Insulation Lath does a thorough job of insulating. Made of the same selected wood fibre as Gold Bond Insulation Board, fabricated into sturdy panels by exclusive "Multi-Seal" Process for greater strength and resistance to moisture. It's easy to appreciate how much quicker these 18 x 48 in. panels of Gold Bond Insulation are applied than old-fashioned narrow strips of wood lath. And here's another saving . . . all plaster goes on the surface of the lath. None is wasted between the lath to form "keys" as with wood lath.

Size and Thicknesses

Gold Bond Fibre Insulation Lath is made in one size, 18 in. x 48 in. In addition to the standard thickness of ½ in., is also

made in special thicknesses of 3/4 in. and 1 in. As illustrated below, all panels have special V-Lap edge on long sides for snug fit and beveled edges all around which insure extra plaster thickness over all joints. Supplied with or without metal reinforced edge.



1. Scope of Work

List areas to be covered. (If standard ½ in. Gold Bond Insulation Lath is to be used for all partitions and ¾ in. or 1 in. thickness for exterior walls, list specifically the areas where each thickness is to be used.)

Space studs, joists or furring strips 16 in. (or 12 in.) on centers. Where necessary, use extra 2 x 4 in. headers.

Material Lath shall be standard Gold Bond Fibre Insulation Lath (or with Metal Reinforced Edge) as manufactured by National Gypsum Company and delivered to job in original wrapped bundles. Panels shall be 18 in. x 48 in. x ½ in. thick (or ¾ in. or 1 in. thick as specified above).

Application
4-1. General. Do not wet lath either before or after application. Apply panels at right angles to framing members with beveled edges exposed. The groove edge of panels shall be down . . . with V-Lap edges fitted moderately close together and ends spaced ¼ in. apart. All end joints shall but over framing members. Stagger vertical joints on walls . . . stagger joints where walls and ceiling meet . . . stagger horizontal joints at corners. (If lath with metal reinforced edge is used, the metal strips require no nails.)
4-2. Nailing. Use 1½ in. blued lath nails with ¼ in. head for ½ in. lath. Use 1¼ in. blued lath nails with ¼ in. head for ½ in. lath. . . . 16 nails to each 18 x 48 in panel . . . four nails to each stud. Space nails 5½ in. apart and ¾ in. in from bevel edge. Do intermediate nailing first, then edges.
4-3. Corner Treatment. Reinforce all internal corners with Gold Bond 3 in. Cornerite including corners where walls and ceilings meet. Reinforce all exterior corners with Gold Bond Corner Bead (specify type). Application

type).

Nastering
1.1 Base Plaster. Gold Bond Hair Fibred Gypsum Plaster (or Gold Bond Wood Fibred Gypsum Plaster) shall be used.
2.2 Application. Apply plaster in three coats in accordance with manufacturer's instructions. It is of utmost importance that plaster be applied full ½ in. thick. To insure uniform thickness, screeds shall be used, particularly on large areas.



The metal reinforcing is uniformly spaced so as not to "hit" on studs or interfere with nailing or cutting. V-Lap edge on long sides and beveled all around for extra plaster thickness. The large panels are applied much quicker than old style lath.



Plastering moves along faster over this smooth base. metal reinforcing becomes imbedded in the plaster which provides extra strength over continuous joints and incidentally insures a uniformly thick plaster coat.

GOLD BOND GYPSUM WALLBOARD AND LATH WITH ALUMINUM FOIL INSULATION

Combines Reflective Insulation with Fireproof Gypsum Wallboard and Lath, Providing Maximum Home Insulation at a Fraction of the Normal Cost

SCIENTISTS have established the fact that heat waves like light waves are reflected by a polished metal surface. This accounts for the introduction of aluminum foil as an insulating material and so conclusively has it proved its superiority over other types, that it was quickly adopted by the United States Navy, leading railroads and steamship lines, and manufacturers of refrigeration equipment.

When insulation for homes became so popular a few years ago, National Gypsum Company was quick to see the great possibilities for aluminum foil because of its effectiveness as an insulator plus its low cost. However, they went a step further and combined this insulating metal with fireproof gypsum lath by laminating a tissue-thin sheet of pure aluminum foil on the reverse side of the lath panels. This produced a 2 in 1 product, namely a superior plaster base with high insulation value. In the same way, gypsum wallboard was treated, thereby producing an insulation wallboard. Both products are illustrated below.

In a new home of average size the use of Gold Bond Gypsum Lath with aluminum foil increases the cost but a trifle because it is used only for the outside walls (facing the sheathing) and for the second floor ceiling. For all inside partitions, standard or plain Gold Bond Gypsum Lath is used. (The latter product is described in Section One. . . . see page 14.)

Provides Year Round Insulation

Actual tests prove that aluminum foil will reflect 95% of all radiant heat. With foil lath for the outside walls and the second floor ceiling, a barrier of this metal insulation is built around the house which turns back summer heat, keeping the home 10 to 20 degrees cooler than the temperature outdoors. In winter, it prevents the escape of furnace heat and often saves from \$40 to \$100 in fuel bills during one heating season. Caution: Foil lath must be applied with the metal side facing the framing members, or in other words next to an air space.

Permanency

Repeated tests of aluminum foil over a period of years fail to disclose any decline in its effectiveness, as an insulator. This is explained by the fact that a protective oxide coating forms on aluminum, which in no way affects its reflective quality, but prevents corrosion even in the vicinity of large steel mills where the air is loaded with corrosive sulphur fumes.



Mirrored Surface Reflects Heat Waves

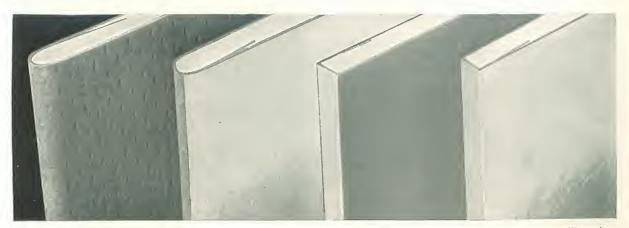
This modern product—a combined plaster base and an insulator—costs but a trifle more than plain gypsum lath. Saves the cost and labor expense of installing a separate insulation material.

Sizes and Thicknesses

GOLD BOND ALUMINUM FOIL INSULATION 3/8 and 1/2 in. thick. 16 x 32 and 16 x 48 in.

GOLD BOND ALUMINUM FOIL INSULATION BOARD

Thickness		Width	Lengths							
	1/4, 3/8, 1/2 in. Sq. Edge 3/8, 1/2 in. Recessed Edge 1/2 in. T. & G. Edge	48 in. 48 in. 48 in.	6, 6,	7, 7,			10, 10, 10		12 12	ft. ft.



Showing the Front and Aluminum Foil-Covered Back of Gold Bond Aluminum Foil Insulation Lath and Wallboard.

GOLD BOND ROCK WOOL INSULATION

A Complete Line of Fireproof Rock Wool Products for Home Insulation Wall Thickness and 2-inch Batts, Loose and Granulated Rock Wool

GOLD BOND Rock Wool embodies all the requisites of ideal insulation for homes. In addition to its effectiveness as an insulator, it is fireproof, lightweight, verminproof, moisture resistant and absolutely permanent.

Made of selected minerals which are reduced to a molten state under terrific heat and blown into long, silky fibres by steam. The fibres are then interlaced by special process to give the material strength and resiliency and to provide millions of tiny dead air insulating pockets. When the finished product is examined, it is hard to believe that this downy blanket of insulation was once stone.

Provides Year 'Round Insulation

Gold Bond Rock Wool is recommended for the exterior walls and under the attic floor or between the roof rafters. This builds a blanket of insulation around the house that prevents furnace heat from escaping and makes it easy to keep the entire house at an even temperature. Savings in fuel run as high as 40%.

In summer, this barrier of insulation is equally effective in keeping out the warm heat of the sun. Step into the attic of a non-insulated house on a hot, sultry day and it's like walking into an oven. Much of this heat finds its way to the sleeping rooms on the second floor making them unbearably warm and stuffy. Gold Bond Rock Wool prevents this heat from seeping through and the entire house is kept from 10 to 15° cooler.

Advantages of the Fibre-Skin Liner

As indicated below, Gold Bond Rock Wool Batts are supplied with or without the Fibre-Skin Liner, pictured at right. This is a tough, waterproofed membrane to which the batts are cemented. Provides effective wind-stoppage plus additional protection against moisture. An overlap on all four sides serves as a handy nailing surface and speeds application.

Styles and Thicknesses

STANDARD ROCK WOOL BATTS

15" x 48" x Wall Thickness 15" x 23" x Wall Thickness

Supplied only with Fibre-Skin Liner With or Without Fibre-Skin Liner

15" x 48" 2" Thickness 15" x 23" 2" Thickness Supplied only with Fibre-Skin Liner With or Without Fibre-Skin Liner

HANDI-BATTS

8" x 15" x Wall Thickness

Without Fibre-Skin Liner

BAG GOODS

Gold Bond Loose Rock Wool Gold Bond Granulated Rock Wool 35 lb. bags

35 lb. bags



Wall Thickness Batts fit snugly between studs and joists, building a blanket of insulation around the house. An overlap of the Fibre-Skin Liner on all sides provides a handy nailing surface.

Color, Conductivity and Density

All Gold Bond Rock Wool Products are white in color. Thermal conductivity is .254 B.t.u. per hour, per square foot, per inch thickness, per degree Fahrenheit temperature difference. When installed in the recommended wall thickness, it is eight to ten times more effective as an insulator than fibre insulation board of the usual ½ inch thickness.

Gold Bond Rock Wool is unusually dense, the weight running from 5 to 6 lbs. per cubic foot. This extra density means more fibres and accordingly, more voids or insulating air pockets. (The highest insulating efficiency of mineral fibre insulation is approximately 5 lbs. per cubic foot.)

Fireproof, Water-resistant, Sanitary

Gold Bond Rock Wool is absolutely fireproof—as fireproof as

the minerals from which it is made . . . Effectively protected from dampness by a new process of actually coating the fibres with water-proofing material. Additional protection against moisture is provided by the water-proofed Fibre-Skin Liner . . . An all-mineral product Gold Bond Rock Wool is vermin-proof and contains nothing to attract rodents of any kind. Rats will not nest in it.



Gold Bond is absolutely fireproof. Withstands the piercing flame of a blow-torch with no ill effects except a slight discoloration.

Permanent . . . Will Not Settle

Gold Bond Rock Wool will not decompose, corrode or deteriorate in any way. Is absolutely permanent and will outlast the building in which it is used. Tests have been made of Rock Wool installations made forty years ago and the material was always found to be in perfect condition and providing the same efficient insulation as when first used. Is resilient and will not settle with age or from vibration.

Specifications

Z

Scope—Gold Bond Rock Wool Insulation shall be installed between studs of exterior walls and between joists under attic flooring (or between roof rafters).

Materials—Insulation shall be Gold Bond Rock Wool Insulation (specify type and thickness) of National Gypsum Company, Buffalo, N. Y., and delivered to job in the original containers.



Loose Rock Wool and Granulated Rock Wool Loose Rock Wool is soft and fluffy and easily installed by hand to the desired thickness . . . Granulated Rock Wool is simply poured from the bag. Both products are moistureproofed and absolutely fireproof. Supplied in 35-lb. bags.



Gold Bond Rock Wool Handi-Batts

Supplied in one size 8" x 15" x Wall Thickness, packed 30 in carton. A high quality, inexpensive type of moisture-proofed batt without the Fibre-Skin Liner. Easy to handle . . . quickly installed . . . fits snugly between study and joists.

GOLD BOND DRY FILL INSULATION

A High-grade Gypsum Insulation Product Easily Installed in New or Old Homes . . .

Provides Efficient Insulation at Low Cost . . . Fireproof

GOLD BOND DRY FILL INSULATION is composed chiefly of finely ground high grade gypsum and fibres. It is used dry between the ceiling joists and between the studs forming the exterior walls.

This barrier of insulation around the house provides additional comfort the year 'round and pays for itself many times over in the saving of fuel during the heating season. Keeps the entire home many degrees cooler in Summer and makes it easier to heat in Winter.

For buildings already built, it is generally possible to apply the insulating over the second story by removing every fifth board of attic floor where a single floor is used. If attic space is not floored over, the insulating is simple.

Made from Fireproof Gypsum

Gold Bond Insulation is made from the same high grade gypsum as all other Gold Bond Products. Gypsum itself has good insulating qualities and these are increased by a special fluffing process. This process increases the number of tiny air cells which it naturally contains and by doing so the insulating value is increased. The fluffing also increases the bulk, reduces its weight and minimizes any settling tendencies.

Its Advantages

- 1-An efficient insulation against heat, cold and sound.
- 2-It is an inert mineral product; absolutely fireproof.
- 3—Applied 3 to 4 in. thick, its cost is extremely low.
- 4-It weighs only 18-20 lbs. per cu. ft.
- 5-420 lbs. covers 100 sq. ft. ceiling area, applied 3 in, thick.
- 6-Easy to handle. Packed in 50-lb. bags.
- 7—Soaking will not injure the insulation after it dries out.



Gold Bond Dry Fill Insulation is poured between ceiling joists and exterior wall studs, building a blanket of insulation around the house.

High Insulation Value

Gold Bond Dry Fill has a coefficient thermal conductivity comparable with that of fibre insulation board. When installed 3 to 4 in. thick, or 6 to 8 times the thickness of $\frac{1}{2}$ -in. thick insulation boards, it has a minimum of over 5 times their insulation value.

SPECIFICATIONS FOR GOLD BOND DRY FILL INSULATION

Scope of Work

All outside walls and attic floor shall be insulated with Gold Bond Dry Fill Insulation.

Material

Insulating material shall be Gold Bond Dry Fill Insulation as manufactured by National Gypsum Company, Buffalo, N. Y. It shall be delivered to the job in manufacturer's original 50 lb. bags and shall be used directly from the bags.

Side Wall Insulation

The entire space between the plaster base or lath and the outside sheathing of all exterior frame walls shall be filled with Gold Bond Dry Fill Insulation from the sill to the underside of the roof plate.

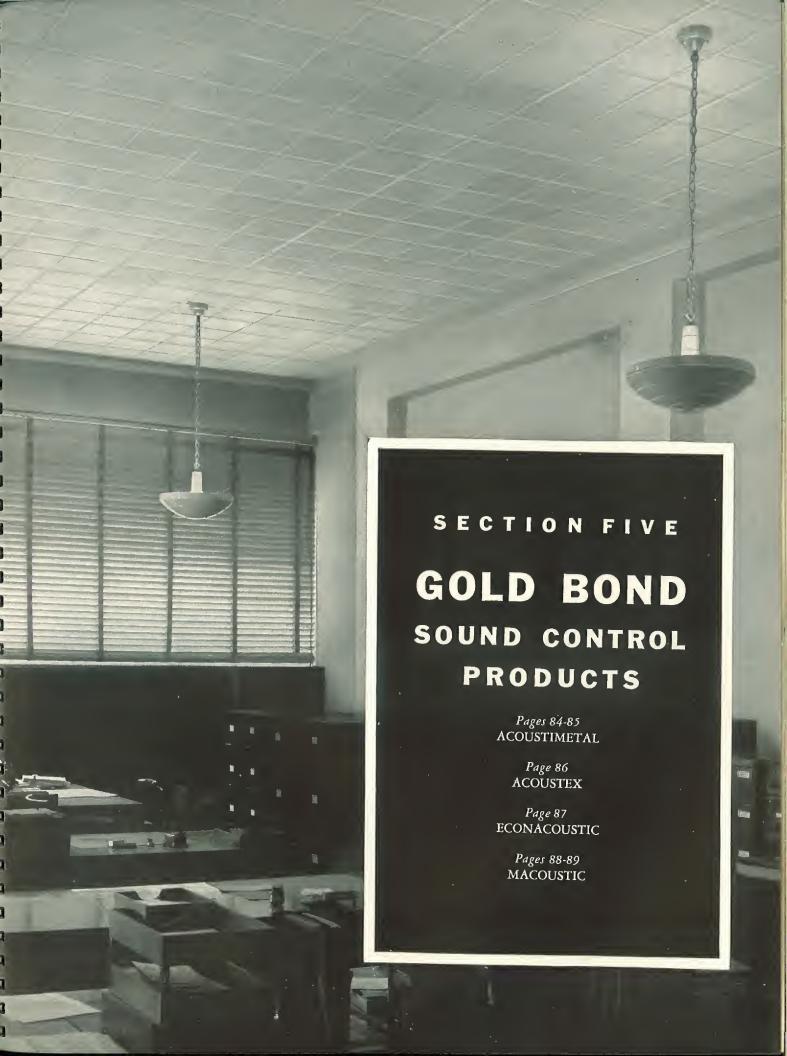
The Insulation shall be left in its original fluffy state and not packed into position.

After the outside sheathing is in place and the walls to be insulated are receiving plaster base or lath, Gold Bond Insulation shall be poured into place in sections not over 48 in. in height at a time as the work of applying the plaster base or lath progresses.

Ceiling Insulation

If gypsum lath is used for the second floor ceiling, Gold Bond Dry Fill Insulation may be installed as soon as the lath is in place. Pour from the bags to a depth of not less than 3 nor more than 4 inches. Sprinkle lightly with water to form a crust. If ceiling is lathed with wood or metal lath, then the insulation shall not be filled in until after the plaster is thoroughly dry.

Note for Carpenter: If the attic is to be floored, the floor must not be laid until the Gold Bond Insulation has been filled between the joists.



GOLD BOND ACOUSTIMETAL

National Gypsum Company, Pioneers in the Development of Acoustical Materials, Offers Acoustimetal as the Finest Product for Sound Correction Sound Absorption of 99% at 512 Frequency . . . Fireproof . . . Sanitary

Among the products available for sound control treatment are many types and styles. One product may excel in sound absorption; another in appearance and permanency; easy installation may be claimed for another and so on. Acoustimetal is outstanding in that it embodies all these separate features and, in short, provides everything that could be desired in an acoustical material.

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Acoustimetal is recommended for the finest jobs where sound correction or noise reduction is desired including churches, auditoriums, offices, radio studios, corridors, restaurants, etc. Licensed under Burgess patents, it has an official sound absorption rating of 99% at frequency of 512 cycles. Supplied in perforated tile-like units with beautiful baked enamel finish, Acoustimetal is absolutely fireproof, sanitary and practically indestructible.

High Light Reflection . . . Sanitary . . . Repaintable

The subject of light reflection is of such importance that much research work has been done in perfecting the surface of Acoustimetal so that it meets the most exacting specifications of lighting engineers . . . incidentally, the beautiful finish of finest baked enamel is extremely durable and permits repeated scrubbings insuring absolute sanitation . . . Acoustimetal requires no further decoration but whenever a change in color is desired the surface may be repainted with brush or sprayer (the latter recommended) with no reduction in sound absorption. Any interior oil paint may be used or any of the non-bridging paints such as Sunflex or Gold Bond Casein Paint. The latter two paints are particularly recommended for high light reflection without glare.

Units May Be Easily Removed and Replaced

Although the units are securely locked in place with metal tee-bars, one or more units may easily be removed to make alterations or repairs in electric wiring, plumbing, etc. When the work has been completed, the units can be quickly replaced, saving the usual cost of patching and repainting the entire ceiling. This is of the utmost importance in office buildings where tenant alterations can be made at minimum cost.

Sound Absorption

The official sound absorption ratings shown below are per authority of the Acoustical Materials Association.

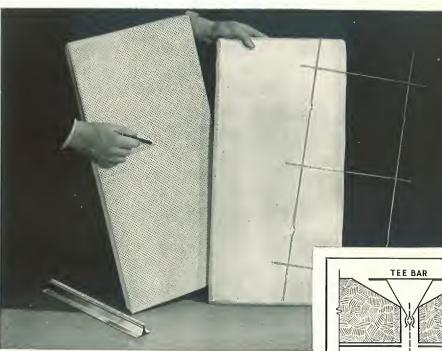
Thick- ness	128	256	512	1024	2048	Noise Reduction Coefficient
11/4" (pad)	.23	.63	.99	.98	.78	.85

Installed by Experienced Applicators

National Gypsum Company has appointed 50 specially trained acoustical engineers in various districts of the United States to supervise the installation of Acoustimetal and other Gold Bond acoustical products. These agents or applicators, with an engineering background, are experts in sound control and may be called in by architects for consultation on acoustical problems. With these sound control specialists in charge of all Gold Bond acoustical installations, architects are assured of perfect workmanship on every job regardless of its location.

forated Acoustimetal Units.

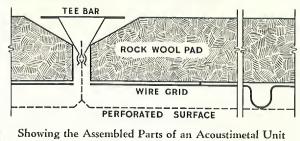




(at right) The danger of falling material is eliminated with this system as the metal units are securely locked in place with steel Tee-Bars and become an integral part of the structure.

The Component Parts of the Gold Bond Acoustimetal System

Each Acoustimetal Unit comprises the following parts pictured at left: The perforated metal casing 12 x 24 in. indented through the middle to form 12 x 12 in. panels. This casing holds the sound absorbing pad of fireproof rock wool shown in the center. At the extreme right is the corrugated wire grid which is placed between the casing and the rock wool pad. In the lower left hand corner is the metal Tee-Bar which holds the units securely in place.



SPECIFICATIONS FOR GOLD BOND ACOUSTIMETAL

SCOPE—Furnish and install Gold Bond Acoustimetal units to cover ceiling surfaces, exclusive of beams and other ceiling projections*, in the following spaces: (List here the rooms where Acoustimetal unit ceilings are required, or refer to Schedule of room finishes). Gold Bond Acoustimetal units shall also be supplied and installed on wall surfaces as follows: (Give an exact description of the extent of wall surfaces to be covered.)

WORK BY OTHERS—(a) Suspended Ceilings, Metal Furring: Contractor for metal furring shall supply and install 1½" hot rolled steel angles or channels in one direction not over 5'-0" on centers, rigidly suspended from the supporting structure according to standard practice, with the bottoms of angles or channels in a true and level plane 1½" above the finished ceiling level, A 1½" angle or channel shall be placed 4" from walls or other terminating surfaces which parallel the direction of angles or channels.

- (b) Suspended Ceilings, Plaster: Others shall supply and install suspended ceilings of lath and plaster (scratch and brown coats), brought to a true and level surface 21/8" above finished ceiling level.
- (c) Wood Framing: Contractor for carpentry shall supply and install wood framing members not over 4'-0" on centers, in one direction. They shall be properly suspended from supporting structure 1\%" above finished ceiling level.
 - (d) Wood Mouldings: If required, to be by carpenter contractor.

MATERIALS—Acoustimetal units shall be of 26 gauge metal, perforated with .068" diameter holes. Units shall be 12" x 24" in size with exposed edges beveled. They shall be scored in center to give appearance of 12" x 12" beveled edge squares. The exposed surface shall be painted with two coats of baked enamel, and the inside with one coat of the same material. Color shall be white or cream, as selected.

Rock Wool Pads: Shall be 11/4" thick, and 12" x 24" in size. Pads shall be completely encased on all sides and edges in flame-proofed paper.

Spacer Grids: Shall be galvanized wire. Projections on the grid shall be 3/8" deep, thus holding the rock wool pads from contact with the surface of the Acoustimetal units.

*It is recommended that Acoustimetal units be installed on flat surfaces only, and that beams or similar projections be finished with standard materials,

Tee bars, referred to in this specification, shall be the standard Acoustimetal supporting members made of 22 gauge copper bearing steel.

The assembled Acoustimetal unit, spacer grid, and rock wool pad, shall have a sound absorption coefficient of .99 at 512 cycles, and a noise reduction coefficient of .85, according to tests published by Acoustical Materials Association.

INSTALLATION—(a) Suspended Ceilings, Metal Furring: Tee bars shall be secured to 1½" angles or channels with tie wire, metal clips or other fastener approved by the National Gypsum Company.

- (b) Suspended Ceilings, Lath and Plaster: 1" x 2" wood ground strips shall be installed by acoustical contractor, 4'-0" on centers. They shall be secured to the metal lath and plaster with toggle bolts. Tee bars shall then be fastened to the ground strips with screws and metal washers, the screws being driven alongside the flange of the tee bar to hold it in place.
- (c) Wood Framing: For method of installing tee bars against wood framing, see section (b) above.
- (d) Concrete Arch: Install 1" x 2" wood ground strips, using an approved anchor fastener, and install tee bars as outlined in section (b) above.
 - (e) Hollow Tile Arch: Same as section (b) above.
- (f) Plaster Surface on Concrete or Hollow Tile Arch: Same as (d) or (e) above,
- (g) Bar Joist Construction: Tee bars shall be wired or clipped to bottom of joists,
- (h) Suspended Ceilings, Direct Suspension: Suspend tee bars at proper level by fastening to metal strap hangers which shall be securely anchored to supporting structure. Strap hangers shall not occur over 5'-0" on centers.

In all cases, tee bars shall be 2'-0" on centers unless otherwise specified.

Assemble spacer grids and rock wool pads in Acoustimetal units, and insert turned-up ends of units in tee bars.

Around perimeter of surface composed of Acoustimetal units, the units shall be cut to fit against adjoining work. At this point the edges of the units shall be (a) supported by an edge channel section furnished by the acoustical contractor and fastened to the vertical wall or other bounding surface, the bottom flange of the edge channel which acts as a cover-head, being prime painted before installation; (b) tacked to wood ground strips supplied and installed by acoustical contractor. Wood cover mouldings to conceal tack heads, to be supplied and installed by carpenter contractor.

GOLD BOND ACOUSTEX

Highest Quality Fibre Acoustical Tile Made by National Gypsum Company For Sound Control and Noise Quieting

Fire-Retardant . . . Distinctive, Textured Surface . . . Seven Colors

THE Gold Bond line of materials for sound control comprises acoustical plaster, metal acoustical tile and several types of fibre acoustical tile. In the latter class, Gold Bond Acoustex

Here is a product with high sound absorption, in a variety of thicknesses, capable of controlling noise reverberations to the split second; proved by thousands of successful installations in theaters, office buildings, radio studios, churches, hospitals, restaurants. A tile that is fire-retardant, beautiful in appearance and permanent; with an established prestige among acoustical engineers and architects. For two distinct purposes, acoustical correction and noise quieting, Acoustex is outstanding.

Description

Acoustex is fabricated from selected wood that is shredded, then toughened by a hard-setting cement binder for extreme strength and durability. Retards fire effectively, is sanitary, easily cleaned. Impervious to mould growth and decay. Can be sawed like wood and is non-brittle—not likely to be broken in handling.

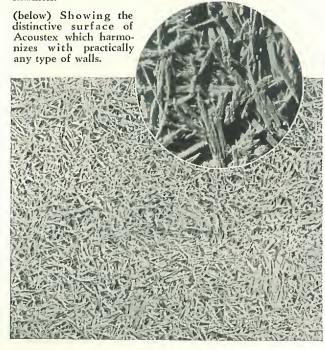
Colors

Supplied in Ivory, Cream, Buff, Light Gray, Apple Green, White and Natural (straw color). Where special colors are desired Acoustex may be painted to suit and incidentally may be redecorated again and again with no appreciable loss of sound absorption. Any interior oil paint may be used or any of the non-bridging paints such as Sunflex or Gold Bond Casein Paint, The latter two paints are particularly recommended where high light reflection without glare is desired. The decoration may be applied with brush or sprayer—preferably the latter—and a minimum of paint should be used.

Installed by Experienced Applicators

Gold Bond Acoustex is sold and supplied only by sound control engineers appointed by National Gypsum Company. This subject is covered in detail in the last paragraph on page 84.

(in circle) Micro-photo showing mass of noise-trapping channels.





Acoustex hushes sound within the room and also quiets outside street noises that enter through open windows or doors.

High Sound Absorption

The following ratings are per authority of the Acoustical Materials Association.

Thickness	Mounting (Described	Sound Absorption Coefficients					Noise Reduction	
Tinekness	Below)	128	256	512	1024	2048	Coefficient	
5/8"	1	.14	.21	.42	.78	.85	.55	
2/8"	2	.22	.23	.57	.87	.72	.60	
* 5/8"	2	.17	.38	.98	.96	.85	.80	
74"	1	.16	.27	.50	.88	.80	.60	
3/4".	2	.22	.30	.70	.92	.79	.70	
3/4"	6	.55	.70	.84	.75	.80	.75	
7/s"	1	.24	.29	.60	.95	.83	.65	
1/8"	2	.24	.40	.82	.90	.72	.70	
1"	1	.23	.28	.63	.95	,81	,65	
11/8"	1	.24	.33	.74	.96	.80	.70	
11/8"	2	.30	.43	.88	.91	.80	.75	

*Backed by 1" rock wool pad.

Types of Mounting

- 1. Cemented to plaster board, Considered equivalent to cementing to plaster or concrete ceiling.
 2. Nailed to 1" x 2" wood furring 12" o.c. unless otherwise indicated,
 3. Nailed to 2" x 4" wood furring 24" o.c.
 3. NOTE: The surface of all samples tested was painted by manufacturer,

Sizes and Thicknesses

STANDARD ACOUSTEX

	TILE SIZES	PLANK SIZES
6 x 12 in.	12 x 12 in. 6 x 24 in.	Widths: 6, 12, 24 in.
24 x 24 in.	12 x 18 in. 18 x 18 in.	Lengths: 30 to 96 in.
	12 x 24 in.	in 6 in. increments.
	Thicknesses: 5/8, 3/4,	√8, 1, 1½ in.

ACOUSTEX For Suspended Ceilings (Specially Grooved) TILE SIZES PLANK SIZES

12 x 12 in. 12 x 24 in. Widths: 12 in. and 24 in. Lengths: 30 to 96 in. in. 6 in. increments Thicknesses: 1 in. and 11/8 in.

GOLD BOND ECONACOUSTIC

A Moderate Priced Acoustical Material That Decorates and Insulates Excels in Sound Absorption . . . 73% at Frequency of 512 Cycles Full I in. Thick . . . Distinctive Brushed Surface . . . Three Colors



Gold Bond Econacoustic is made from selected southern hardwood fibres by a special fabrication process that provides greater porosity without sacrificing strength. Actually, the material is a mass of intercommunicating channels that smother noise like magic. Lightweight, durable and permanent. A beautiful looking product, with distinctive brushed surface, it provides sound control, decoration and insulation in one operation, at a comparatively low cost.

High Sound Absorption

Z

The following official ratings are per authority of the Acoustical Materials Association.

Thick-	S	Noise reduction				
ness	128	256	512	1024	2048	coefficient
1 in.	.25	.40	.78	.76	.79	.70

NOTE: The surface of this sample was painted by manufacturer.

Thickness, Sizes and Colors

Full 1 in thick three sizes: 12×12 , 12×24 , 16×16 in, with beveled, butt edges all around. Brushed surface in three colors: Natural (two-tone Cream), also pre-painted Cream and White. Where special colors are desired, decorate with Gold Bond Casein Paint, Sunflex or any interior oil paint. Spray painting is recommended with a minimum of paint.

Installed by Experienced Applicators

Gold Bond Econacoustic is sold and applied only by sound control engineers, appointed by National Gypsum Co. This subject is covered in detail in the last paragraph on Page 84.



Here's smart styling for a large ceiling. Economical, too, because noise quieting, decoration and insulation are provided in one operation with Gold Bond Econacoustic.

GOLD BOND TROWEL FINISH MACOUSTIC

Fireproof Acoustical Plaster for Acoustical Correction and Noise Reduction... Sound Absorption of .50 at Frequency of 512 Cycles Applied 1/2 Inch Thick... Supplied in White and Factory-Mixed Tints

GOLD BOND TROWEL FINISH MACOUSTIC is a fireproof acoustical plaster of unusually high sound absorption. Recommended for all types of new buildings where acoustical correction is advantageous such as theatres, auditoriums, churches, radio studios, etc. In buildings of this kind, Trowel Finish Macoustic is used to reduce reverberations and make hearing conditions ideal.

Macoustic also excels as a sound absorptive material for use in hospitals, corridors, schoolrooms, libraries, swimming pools and restaurants—the objective in these cases being to subdue noise as much as possible.

Macoustic is simply mixed with water and applied full $\frac{1}{2}$ in. thick over a base of gypsum plaster, lime plaster, or portland cement. No special tools are required nor specially trained applicators. A regular steel trowel is used and any plasterer can do the work.

Fireproof, Sanitary, Permanent

Trowel Finish Macoustic, a mineral product, is fireproof, vermin proof and absolutely permanent. Because of the nature of the buildings in which acoustical material is generally used, namely hospitals, theatres, etc., the fireproof and sanitary qualities of the material are of vital importance. In selecting an acoustical material, consideration should be given to these qualifications as well as sound absorption and permanency.



Sound Absorption

The following ratings appear in Bulletin No. 6 issued by the Acoustical Material Association. They cover official tests of material applied under conditions simulating actual job conditions. Tests were conducted by Paul E. Sabine, Riverbank Laboratories, Geneva, Ill.

Sound Absorption Coefficients

				Frequency		
Material	Thickness	128	256	512	1024	2048
Trowel Finish Macoustic	½ inch	.30	.28	.50	.79	-54

Noise Reduction Coefficient .55.

Federal Jobs—Gold Bond Trowel Finish Macoustic Plaster 1/2 in. thick meets Federal Specifications for Plaster; Acoustic SS-P-391 at the following classifications: Class I for Auditorium Treatment . . . Class T for Noise Reduction.

Colors

Color No. 1 White (Natural Color) Color No. 5 Ivory Color No. 10 Cream Color No. 15 Buff



(above) The surface of Trowel Finish Macoustic, full size. Under a magnifying glass this surface appears as a mass of tiny ducts which permit the entrance of sound.

(left) Microphoto of internal cross-section of applied Trowel Finish Macoustic, magnified 32 times. This labyrinth of intercommunicating sound channels is created by the automatic bursting of millions of entrapped gas bubbles, while drying

Special Decoration and Cleaning

Where specifications call for special colors, Macoustic in white or ivory may be used and decorated (after application) with Gold Bond Casein Paint, Sunflex or other non-bridging paints, brushed or sprayed on (the latter is preferable). Oil paints should not be used as they will seal the surface and reduce the sound absorption.

Macoustic may be cleaned by going over the surface with a hand vacuum cleaner. Or a cloth, dampened with a mild solution of Ivory soap and water, may be used. If the surface gets real dirty, it is generally more economical and quicker to redecorate as the cost of spraying with one coat of paint is very moderate.

Swimming Pools

Trowel Finish Macoustic may be used in swimming pools and similar places where the material will be subjected to almost constant high humidity but must be applied over a portland cement base.

Have Sample OK'd Before Starting Job

To acquaint plasterers on the job with the ease and simplicity with which Trowel Finish Macoustic is applied and the manner of finishing the surface, it is recommended that a few shovelfuls of the material be mixed and applied to some convenient wall space before starting the job. Have the architect approve this sample as standard for the job.



(above) This Macoustic ceiling serves a double purpose. When the auditorium is used for assemblies, Macoustic reduces reverberations and makes hearing conditions ideal. When used as a gym, noise is effectively hushed.

(at left) This ceiling of sound-absorbing Macoustic is as permanent as the building itself. Notice how it harmonizes perfectly with the floated walls of standard Gold Bond Plaster.

Specifications for Gold Bond Trowel Finish Macoustic

Specifications

- 1-1. Scope—Areas, as specified on plans, shall be covered with Gold Bond Trowel Finish Macoustic (state color number).
- 1-2. Material—Acoustical plaster shall be Gold Bond Trowel Finish Macoustic Color Number (state number) as manufactured by National Gypsum Company, Buffalo, N. Y. All Macoustic shall be delivered to the job in its original containers and nothing shall be added but clean water.
- 1-3. Thickness—Macoustic shall be full ½ in. thick; applied in two ¼-in. coats.
- 1-4. Mixing and Applying—Macoustic shall be mixed and applied strictly in accordance with instructions supplied by the manufacturer.

Mixing

Trowel Finish Macoustic, as delivered in bags, is ready for mixing with clean water. Nothing else may be added on the job. A slight excess of water is recommended during the soaking process and the mixture should be allowed to stand for an hour before using. Then, add enough dry material to bring the mass to a stiff working consistency. May be retempered if necessary. Overnight soaking is not recommended. A mechanical mixer, if available, is recommended. Give the mixture a brisk hoeing just before hodding.

Application

3

Trowel Finish Macoustic may be applied over a base of gypsum plaster, lime plaster, or portland cement—the base to be done dry and well scratched. Apply in two coats. The base (scratch) coat should be ½ in, thick, applied with a steel trowel and left as it comes from the trowel. Allow this first coat to stand overnight.

Next, apply a second 1/4 in. coat of the same mix and bring to a true surface with as little troweling as possible. Allow to take up until free water has disappeared. Then drag trowel over the surface to eliminate trowel marks and to open up surface.

Swimming Pools—Trowel Finish Macoustic may be applied in swimming pools or similar buildings where it will be subjected to almost constant high humidity but must be applied over a base of portland cement rather than gypsum plaster. (Recommended base is composed of equal parts of portland cement and finish lime with two parts of sand.)

Joinings—Joinings or lap marks should be avoided wherever possible by finishing one complete unit or panel at a time.

Drying—Trowel Finish Macoustic is a slow drying material, requiring at least 10 days to dry thoroughly, depending upon temperature and drying conditions. It becomes progressively harder and stronger for a period of months after application.

THE Gold Bond HANDBOOK